

J. Clarke

THE
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OR,
A VIEW OF THE PRESENT STATE
OF ALL THE
KINGDOMS, STATES, AND COLONIES
IN THE KNOWN WORLD.
IN TWO VOLUMES.

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BY JEDIDIAH MORSE, D.D.
Minister of the Congregational Church in Charlestown.

Seventh Edition.

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NEW-YORK ; WEBSTERS AND SKINNERS, ALBANY ; SEWARD &
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IN SOUTH-AMERICA, the valuable and authentic documents furnished to our government by their Commissioners, sent to visit this quarter of the world; also Mawe's description of Brazil, have been faithfully and patiently examined, and their substance incorporated into this work.

The accounts of the RUSSIAN, DANISH, and BRITISH DOMINIONS in North-America, that of the latter especially, have undergone a thorough revision, and very considerable and valuable additions have been made to them. Such notice of the late northern expeditions for discovery has been taken, as the information at the time furnished.

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The time when attention was first paid, professedly and scientifically, to the study of geography, is unknown. The general opinion is, that the Greeks, who were the first cultivators of this science in Europe, received it, either from the Egyptians or Babylonians; but it cannot be determined to which of these two nations belongs the honor of having invented it. Herodotus informs us, that the Greeks first learned the pole, the gnomon, and the twelve divisions of the day, from the Babylonians.

Geography was very imperfect in its beginning, and has advanced slowly toward its present degree of perfection. The true figure of the earth was unknown to its first inhabitants, and the earliest opinion seems to have been that, which would most naturally result from the first information derived from the senses. It was considered as a large circular plane; and the heavens, in which the sun, moon, and stars, appear daily to move from east to west, were supposed not to be elevated to a very great height above it, and to have been created solely for its use and ornament. It is not known who first rejected this erroneous hypothesis, and showed that the figure of the earth is spherical; but it seems to have been done at a time of remote antiquity. For the accounts we have, relative to the proficiency made by the ancient Egyptians and Chaldeans in astronomy, particularly in the doctrine of eclipses, furnish sufficient evidence of their acquaintance with the sphericity of the earth.

The Egyptians early sent colonies into different places; particularly the Phenicians, who, as far back as the time of Abraham, were a commercial people. In consequence of their knowledge of the art of navigation, they were enabled to make, and did make, more valuable improvements in geography, than were made by any other nation of the ancients.

It appears that the situation of places was first determined according to climates; and that geographers were then guided, in fixing on the climates, by the form and color of certain animals, which were to be found in different countries. The appearance of Negroes, or what they called Ethiopians, and of the larger sized animals, as the rhinoceros and elephant, suggested to them the northern and southern limits of the torrid zone: for reason, said they, points out to us, that similar things appear in the same temperature of the elements; and that, whether they be plants or animals, they are produced according to the similar state of the air or climate under the same parallels, or in a situation that is similar, being equally distant from either pole. Such a gross manner of dividing the climates must be considered as one of the first rudiments of geography. A different and more scientific method was used by the Egyptians and Babylonians, who determined the situation of places, or their distance from the equator, by observing *the length of their longest and shortest days*. And these observations were made with a species of sun-dial, having a *stilus* or *gnomon*, erected perpendicularly upon a horizontal plane, by which the length of the shadow of the gnomon, in proportion to its height, might be measured.

It may be conjectured that travelling, soon after it began to be much practised in the world, gave rise to a kind of geography, which

INTRODUCTION.

might furnish in some degree the requisite information relative to its way. Itineraries constituted this rudiment of geography. Some, who had performed journeys, made a rough sketch or description of their routes, for the information of others who might afterward wish to travel in the same. The earliest specimen of this kind, of which we have an account, is that of Sesostris, an Egyptian king and conqueror, who, as Eustathius relates, "having traversed great part of the earth, recorded his march in maps, and gave copies of his maps not only to the Egyptians, but to the Scythians, to their great astonishment."* And according to the account of Apollonius of Rhodes, he marked the direction of the roads, and the boundaries of the land and sea, upon columns erected at Cœa in Colchis. Some have imagined that the Jews made a map of the Holy Land, when they gave the different portions to the nine tribes at Shiloh; for Joshua tells us, that they were sent to walk through the land, and that they *described it in seven parts in a book*; and by Josephus we are informed, that when Joshua sent out people from the different tribes to measure the land, he gave them, as companions, persons well skilled in geometry. And the same historian afterwards says, that the men, who were sent, being ten in number, *having gone round and estimated the land*, returned to Joshua at Shiloh in the seventh month. From these accounts it seems probable, that a geometrical survey of the Holy Land was then made; but it cannot be fully determined, whether the mensuration was protracted and digested into a kind of map, or registered in numbers.

HOMER was first distinguished among the Greeks for his knowledge of the different nations of the earth, and the countries they inhabited. He has described so many places, and with such a degree of accuracy, that Strabo considered him as first among the geographers of ancient times.

A taste for the sciences led THALES into Egypt, where he lived with the priests, receiving their instruction, and giving them some in return; for it appears, that he showed them a method of measuring the height of the pyramids by the length of their shadows. On his return to Greece, he introduced some of the fundamental principles of geography and astronomy: Among other things he taught his countrymen that the earth is globular, and may be divided into five zones, by means of five parallel circles, viz. the equator, the two tropics, and the two polar circles; and that the equator is cut obliquely by the ecliptic, and perpendicularly by the meridian. Thus he made them acquainted with the principal circles of the sphere. He also taught them, that the year consisted of 365 days, which he learned from the Egyptians.

ANAXIMANDER, a disciple of Thales, is supposed by some to have been the first, who made a geographical map, and attempted to delineate the surface of the earth, with the boundaries of land and water,

* Mr. Lawton, in his account of North Carolina, (1714,) states, that "the natives of that province drew maps of rivers, towns, mountains, and roads, very exactly, and "within a small matter of latitude." They were drawn in the ashes of the fire, or on mats and pieces of bark. Tupaya, a native of one of the Society isles, presented Mr. Forster with a chart of about 80 islands.

on an artificial globe. It is not improbable that he was acquainted with the map of Sesostris, who had sent copies of it throughout the then known world : and therefore has rather, perhaps, the merit of improving and extending the invention, than that of originating it. He was the author of the first Grecian map on record, which is mentioned by Strabo. It is conjectured that Hipparchus refers to the map of Anaximander under the title of the *ancient map*, which he preferred in a few particulars to that of Eratosthenes ; and that it was a general map of the world, as far as it was then known. The knowledge of the earth was indeed very limited at that time, as it scarcely extended beyond the temperate zone, and did not even comprise the whole of that. The extent of the representation of the world from east to west was twice as great as from south to north ; hence the reason, why distances on the earth in the former direction were denominated *longitude* ; and those in the latter, *latitude*. Maps were afterward multiplied.

Some idea of the maps of those times may be formed from what Herodotus relates of one, which Aristagoras, tyrant of Miletus, showed, for a certain purpose. It was "a plate of brass, on which a description of the whole earth, with all the seas and rivers, was engraved." This account of the extent of the map is not to be taken in a literal sense, as it probably refers only to the whole of the intermediate countries to be traversed in the proposed march. And from the state of geography at that time, it seems rational to conclude, that by the *sea*, was meant no more than the Mediterranean ; by the *earth* or *land*, the coasts of that sea, and more particularly the Lesser Asia, extending toward the middle of Persia ; and by the *rivers*, the Halys, Euphrates, and Tigris, which Herodotus informs us must have been crossed in the projected expedition. It contained one straight line, called the *Royal Highway*, with the royal stations or places of encampment from Sardis to Susa. Of these the whole number was 111 ; and the distance, 13,500 stadia, or about 1680 of our miles. Herodotus tells us, that 150 stadia, or about 18 of our miles, were allowed for a day's march ; therefore 90 days would be requisite for performing the whole march.

Such itinerary maps of the places of encampment were of great importance to armies. Alexander had in his army two surveyors, Diognetus and Bacton, who measured and kept an account of his marches. Pliny and Strabo have preserved these measures. Arrian has handed down to us the particulars of the navigation of Nearchus and Onesicritus, who sailed back with Alexander's fleet from the mouth of the Indus, to those of the Euphrates and Tigris. By reducing Tyre and Sidon, the Greeks informed themselves of all the places to which the Phenicians traded by sea ; and we know that their commerce extended even to the British islands. The successors of Alexander in the east, by carrying their conquests to the mouths of the Ganges, obtained a general knowledge of many parts of India. Ptolemy Evergetes led his armies into Abyssinia ; and from his marches and success in that distant country, a general knowledge of that part of Africa was obtained.

ERATOSTHENES was the first, who attempted to reduce geography to a system, and introduced a regular parallel of latitude. This was traced over certain places, where the longest day was of the same length. He began it at the straits of Gibraltar; thence through the Sicilian sea, and near the southern extremities of Peloponnesus; whence it was continued through the island of Rhodes and the bay of Issus; there it entered Cilicia, and having crossed the rivers Euphrates and Tigris, was extended to the mountains of India. By means of this line he endeavored to rectify the errors of the ancient map, supposed to be that of Anaximander. In drawing this parallel he was regulated by observing where the longest day was $14\frac{1}{4}$ hours, which was afterwards found by Hipparchus to be the latitude of 36 degrees.

The first parallel through Rhodes was ever afterwards considered as the foundation of all ancient maps: and many succeeding geographers attempted to measure the longitude of the then known world in stadia and miles, according to the extent of that line. Eratosthenes soon after attempted to draw other parallels of latitude, and also to trace a meridian at right angles to these, passing through Rhodes and Alexandria, down to Syene and Meroc; and, as the progress he thus made naturally tended to enlarge his ideas, he at last attempted the much more difficult operation of determining the circumference of the globe, by an actual measurement of an arc of one of its great circles. His process was ingenious, and for a first experiment very successful.

The map of Eratosthenes appears to have contained little more than the states of Greece, and the dominions of the successors of Alexander, digested from the surveys that had been made. Strabo informs us that Alexander very carefully examined the measures of his surveyors himself, having always his descriptions from the most skilful persons in every country; and that a copy of their surveys was given by Xenocles, his treasurer, to Patrocles the geographer, who, according to Pliny, was admiral of the fleets of Seleucus and Antiochus. His geographical work is often quoted by Strabo and Pliny, and he seems to have furnished Eratosthenes with the principal materials and authorities for the oriental part of his map of the then known world. The voyages of Patrocles under Seleucus upon the Caspian sea, and elsewhere, were a kind of supplement to the surveys of Diognetus and Baeton, and to the voyages of Nearchus and Onesicritus, the two admirals, who were employed under Alexander. Eratosthenes has also quoted the voyages of Pytheas into the great Atlantic ocean, which gave him some idea of the western parts of Europe, but not sufficient to enable him to insert them in the outline of a map.

TIMOCHARIS and **ARISTILLUS**, who flourished about 300 years before the christian era, seem to have been the first who attempted to fix the longitudes and latitudes of the fixed stars, by considering their situation with respect to the equator.* One of their observa-

* The longitudes and latitudes of the stars were referred to the equator both by Timocharis and Hipparchus; and never uniformly to the ecliptic, till after the precession of the equinoxes was fully established by Ptolemy.

tions gave rise to the discovery of the precession of the equinoxes, which was made by HIPPARCHUS about 150 years afterward ; and he made use of their method in order to delineate the parallels of latitude and the meridians on the surface of the earth ; thus laying the first solid foundation of the science of geography, and uniting it more closely to astronomy.

Although latitudes and longitudes were thus introduced by Hipparchus, it does not appear that any subsequent writers on the subject attended to them before the time of Ptolemy. STRABO, VITRUVIUS and PLINY, have each entered into a minute geographical description of the situation of places, according to the lengths and shadows of the gnomon, without taking any notice of the degrees and minutes of longitude and latitude. The introduction of longitude and latitude into geography laid a foundation for making maps or delineations of the surface of the earth in plano, on a plan essentially different from any that had been attempted before, and much better.

War, though one of the greatest calamities that can befall a people, has been made subservient to the advancement of geographical science. As the Romans were the *conquerors*, so they became the *surveyors*, of the world. In all their provinces, camps were constructed at proper intervals, and roads raised with substantial materials to form an easy communication between the different places of encampment. Every new war produced a new survey and itinerary of the countries, which were the scenes of action ; so that the materials of geography increased with their wars. At the beginning of the *second Punic war*, according to Polybius, when Hannibal was preparing for his expedition against Rome, by crossing from Africa into Spain, and so through Gaul into Italy, the Romans measured or surveyed all these places with the greatest care. Julius Cæsar caused a general survey to be made of the whole Roman empire, by a decree of the senate. Three surveyors, who were said to have been very wise men and accomplished philosophers, were appointed to this business, and to each was assigned a different division of the empire. Zenodorus completed his survey of the eastern part of the empire in 14 years, 5 months and 9 days ; Theodotus finished the northern part in 20 years, 8 months and 10 days ; and Polychitus, the southern part in 25 years, 1 month and 10 days. This survey was begun in the year 44, and finished in the year 19, before Christ. The Roman itineraries, that are still extant, show the degree of care and attention with which their surveys in all the different provinces were made ; and Pliny has filled the third, fourth, and fifth books of his *Natural History*, with the geographical distances that were thus measured. There is likewise still preserved an ancient set of maps, called the *Peutingian Table** or *map*, published by Velsæus and

* This table or map was found by Conrad Celtes, and purchased by Conrad Peutinger, a burgomaster of Augsburg, from whom it derives its name. This ancient map was published and explained by Beatus Rheuanus and Marcus Velsæus : it seems to have been first executed in the fourth century after Christ, and is a delineation of a journey through Europe and Asia, beginning at Hercules' Pillars, and ending at the ocean, which terminated the conquests of Alexander.

Bertius, which gives a sufficient specimen of what Vegetius calls the *Itinera Picta*, designed for the better direction of their armies in their marches.

STRABO and PTOLEMY were the most eminent of the ancient geographers. Strabo, who wrote in the time of Augustus, relates very little more than he saw himself; he made a vast number of voyages to obtain the information that was necessary, in order to give the requisite certainty to his accounts, and is very short in what he relates from others. He was a philosopher, as well as a geographer. Good sense, perspicuity, accuracy, and solidity of judgment, are visible in every part of his works. He states that the trade of the Malabar coast, which was the most important ever carried on by the Romans, occupied 120 vessels annually. To Strabo we are chiefly indebted for our information respecting the geographical knowledge of the ancients. The geography of Ptolemy is more extensive; it takes in a greater part of the earth, while it seems to be equally circumstantial every where; but this extent renders it liable to more errors. He had the merit of carrying into full execution and practice the invention of Hipparchus for designating the situation of places on the earth by latitude and longitude, after it had lain dormant upwards of 250 years; and thus he greatly advanced the state of the science.

The Roman empire had been enlarged to its greatest extent, and all its provinces well known and surveyed, when Ptolemy, about 180 years after Christ, composed his system of geography. The principal materials for his work were, *the proportions of the gnomon to its shadow*, taken by different astronomers at the times of the equinoxes and solstices; *calculations* founded upon the lengths of the longest days; the *measures*, or computed distances of the principal roads contained in the Roman surveys and itineraries; and the various *reports of travellers and navigators*, who often determined the distances of places by hearsay and conjecture. All these were compared together, and digested into one uniform body or system; and were afterward translated by him, as far as was necessary in adopting the plan of Hipparchus, into the new mathematical language of *degrees and minutes of longitude and latitude*.

This system, though full of imperfections, continued in vogue till the beginning of the 17th century; and the capital errors of Ptolemy's work kept their place in all maps, by a sort of unquestioned prescription, down even to that time.

Little was done in geography from the days of Ptolemy to the restoration of learning in Europe; for the Arabian geographers copied and retailed all his principal errors. The Crusades, indeed, "prepared a soil for the seed of learning, which began to be scattered abroad at the fall of the Greek empire, in the 15th century, an era memorable for the dawn of political and religious liberty, and pregnant with inventions and discoveries of the highest consequence to mankind."

Passing by the discoveries of Benjamin of Tudela in Spain, a Jew, in the southern parts of Europe, the eastern parts of Asia, and the northeast parts of Africa, about the middle of the 12th century; and

those of a mission of Franciscan and Dominican monks, in some of the Russian provinces as far as Tibet, at the close of the 12th, and beginning of the 13th century, we notice the more important and extensive benefits conferred by the mercantile excursions of Marco Polo, about the end of the 13th century. This enterprising Venetian spent about twenty-six years of his life in travelling, in which time he visited most of the large trading cities in Asia, the northern borders of China, Ceylon, Malabar, and other parts of Hindoostan, and collected information of countries which he did not personally visit.

In the fifteenth century the Portuguese, animated with the desire of finding a passage to the East-Indies, pushed their inquiries along the western coast of Africa, till they found the Cape of Good Hope, in 1486. In 1497, Vasquez de Gama doubled the Cape, and the next year made a voyage to India, and thus completed the discovery of that country by the east. The passage being thus opened, several European nations, desirous of sharing in the rich commerce of the east, sent their ships to the Indian Sea, where they discovered the Asiatic islands, and penetrated to the empire of Japan. The voyages of the Russians and of others, have completed our knowledge of the eastern parts of the continent of Asia.

The Portuguese had just crossed the equator, when CHRISTOPHER COLUMBUS, a native of Genoa, an intrepid and skilful navigator, conceived the idea of finding India by a western course. He spent about twenty years in projecting and preparing for this enterprise. At length, in 1492, he crossed the Atlantic ocean; but, instead of the Indies, he discovered—AMERICA.

The improvements in geography at the time of the revival of learning in Europe, and since, have been greatly accelerated by the progress made in astronomical knowledge. More correct methods and instruments for observing the latitude have been invented; and the discovery of Jupiter's satellites afforded a much easier method of finding the longitude, than was formerly known. Solar and lunar eclipses, transits of Mercury and Venus over the sun's disc, and occultations of the fixed stars by the moon, also furnish means for determining longitudes. And since the *lunar tables* were improved by Professor Mayer, and *time keepers* by Mr. Harrison and others, this important object has been obtainable by *measuring distances of the moon from the sun, and from certain fixed stars, and by keeping time*. The voyages and travels of different nations also, performed by enterprising and intelligent men, have brought to our knowledge a vast number of countries utterly unknown before. Literally "many have run to and fro through the earth, and knowledge has been increased." Even the names, and titles of the works, of modern voyagers and travellers, would fill many pages. The number is still increasing, and books of travels and voyages are multiplied beyond all former example. With this increase of geographical knowledge, there is, happily, a corresponding increase of desire among christian nations to send missionaries and the Holy Bible, into all places where it is unknown. From present appearances, the

time is not distant, when "the earth shall be full of the knowledge of the Lord, as the waters cover the sea."*

ASTRONOMY,

AS CONNECTED WITH THE SCIENCE OF GEOGRAPHY.

ASTRONOMY is the science, which treats of the heavenly bodies. By its aid we learn the figure and dimensions of the earth, and the relative situations of places upon its surface. Hence the propriety and importance of giving a short account of this science in an Introduction to Geography.

EXPLANATION OF TERMS.

Angle. An angle is the space included between two lines, which meet each other.

Circle. A circle is a regular figure, bounded by a curve line, every part of which is equally distant from a point within it, called the *centre*. The *circumference* of a circle is the curve line, which bounds it. The *radius* of a circle is the distance from the centre to the circumference; and the *diameter* is equal to two radii, or the longest straight line, that can be drawn in a circle. The circumference of every circle is supposed to be divided into 360 equal parts, called *degrees*; each degree into 60 *minutes*; each minute into 60 *seconds*. An *arc* of a circle is the measure of an angle. Thus a right angle is an angle of 90 degrees. An *arc* of a circle is part of its circumference.

Sphere. A sphere is literally a ball, or globe. By the *celestial sphere* is meant, the apparently *concave* orb. which surrounds the earth, and in which the heavenly bodies appear to be situated at equal distances from the eye. In order to facilitate the knowledge of the places of these bodies in the sphere, several circles are supposed to be described on its surface, and are denominated *circles of the sphere*. The circles of the celestial sphere are supposed to have their centres coincident with the centre of the earth, and to mark correspondent circles on the earth's surface, where their planes cut it; so that the celestial and terrestrial spheres or globes are considered as concentric, and as having concentric circles on their surfaces.

Great circles. Great circles are those, whose planes pass through the centre of the sphere, and, of course, divide it into two equal parts. Of these there are four, the *Equator*, the *Ecliptic*, the *Meridian*, and the *Horizon*.

Small circles. Those circles, whose planes divide the sphere unequally, are called *small circles*. Their planes do not pass through

* Is. xi. 9.

its centre. Of these there are four, also; the two *Tropics*, and the two *Polar Circles*.

Axis. The axis of the earth, or any heavenly body, is an imaginary line, around which it performs its diurnal rotation.

Poles. The Poles are the extremities of the axis.

Equator. The Equator is a great circle, whose plane divides the earth and the heavens into northern and southern hemispheres. The axis of the earth makes a right angle with its plane. It is often called the *Equinoctial*; because, when the sun is directly over it, the days and nights are of equal lengths in all parts of the world.

Meridian. The Meridian is a great circle, whose plane divides the earth and the heavens into eastern and western hemispheres. There is an indefinite number of meridians; for all places, that lie east or west of each other, have different meridians. They all pass through the poles of the earth, and cut the equator at right angles. The meridian of any place, also, passes through the *zenith* of that place, or the point directly over our heads; and through the *nadir*, or the point directly under our feet. The word meridian is derived from *meridies*, *mid-day*; because when the sun is on the meridian of any place, it is noon at that place. Geographers usually assume the meridian, which passes through the metropolis of their own country, as the first meridian. But as great inconveniences and confusion result from this practice, the first meridian, throughout the following work, will be that of the Royal Observatory at Greenwich.

Ecliptic. The Ecliptic is a great circle, whose plane makes an angle of $23^{\circ} 28'$ with the plane of the equator. Considered as a circle in the heavens, its circumference is the path, which the earth describes annually in its revolution round the sun. The points, in which the ecliptic intersects the equator, are called the *equinoctial points*; because, when the sun is in either of those points, it shines on both poles, and the day is then equal to the night throughout the earth. The meridian, which passes through these points, is called the *equinoctial colure*. The two points in the ecliptic, which are 90 degrees distant from these, are called the *solstitial points*; because, when the sun is in either of them, it is summer in the nearest hemisphere. The meridian passing through these points is called the *sol-titial colure*, and is the only meridian which cuts the ecliptic at right angles. The sun passes through the equinoctial points on the 20th of March, and the 23d of September. The former is called the *vernal*; the latter the *autumnal* equinox. The sun is in the solstitial points on the 21st of June, and the 21st of December. The former is called the *summer*; the latter the *winter* solstice.

The ecliptic is divided into 12 equal parts of 30 degrees each, called *signs*. These begin at the vernal intersection of the ecliptic with the equator, and are numbered from west to east. The names and characters of the signs, with the months in which the sun enters them, are as follows:

Latin names.	English names.	Characters.	Months.
1 Aries	The Ram	♈	March
2 Taurus	The Bull	♉	April

Latin names.	English names.	Characters.	Months.
3 Gemini	The Twins	♊	May
4 Cancer	The Crab	♋	June
5 Leo	The Lion	♌	July
6 Virgo	The Virgin	♍	August
7 Libra	The Scales	♎	September
8 Scorpio	The Scorpion	♏	October
9 Sagittarius	The Archer	♐	November
10 Capricornus	The Goat	♑	December
11 Aquarius	The Water Bearer	♒	January
12 Pisces	The Fishes	♓	February

The first six are called *northern* signs; and the last six, *southern*.

Zodiac. The Zodiac is a broad belt in the heavens, 16 degrees wide; in the middle of which is the ecliptic. It comprehends the orbits of all the planets.

Horizon. There are two kinds of horizons; the *sensible*, and the *rational*. The *sensible* is the small circle, which limits our prospect; where the sky and the land or water appear to meet. There are as many of these as there are places. The *rational* horizon is a great circle, whose plane divides the earth into upper and lower hemispheres. Each place has its own rational horizon, so that there are as many rational horizons, as there are spots on the earth's surface. The rational horizon of every place is that great circle of the earth, whose circumference is every where 90 degrees distant from the place. The poles of the celestial horizon are the *zenith* and the *nadir*.

Declination. The declination of a heavenly body is its distance north or south of the equator, measured on a meridian.

Tropics. The Tropics are two small circles, drawn parallel to the equator, at the distance of $23^{\circ} 28'$ on each side of it. The northern is called the *tropic of Cancer*; the southern, the *tropic of Capricorn*. The sun never passes these circles; but, when it has arrived at either, it turns, and goes back toward the other. They, of course, bound those places where the sun is vertical.

Polar Circles. The Polar Circles are two small circles, parallel to the tropics, and are described round the poles at the distance of $23^{\circ} 28'$ from them. The northern is called the *arctic circle*; and the southern, the *antarctic circle*. The following considerations will explain the reason of their being drawn. The sun, at any one moment, illuminates half of the earth. If the sun were always on the equator, it would just illuminate the two poles, and the two poles would enjoy uninterrupted day. If it were always at the tropic of Cancer, it would shine $23^{\circ} 28'$ over the north pole, and all the places included within the arctic circle would constantly be illuminated. Of course, whenever the sun is in either tropic, those who live directly under the nearest polar circle see it for that day without its setting. These circles therefore bound those places where the sun sets daily.

A *direct* or *right sphere* is when both the poles are in the horizon, and the equinoctial passes through the zenith; so that the equator

and all its parallels, such as the tropics and polar circles, make right angles with the horizon, and are divided by it into two equal parts. Hence, that the sun, moon and stars ascend directly above, and descend directly below the horizon. This position is peculiar to those places, which are under the equator.

An *oblique sphere* is that, where all the diurnal motions are oblique to the horizon. This is common to all parts of the earth, except those under the poles and the equator. In an oblique sphere, one of the poles is elevated above, and the other depressed below, the horizon.

A *parallel sphere* is when one pole being in the zenith and the other in the nadir, the equator and all its parallels are parallel to the horizon. This position is peculiar to those parts which lie directly under the poles.

Zones. The surface of the earth is supposed to be divided into five unequal parts, called zones, each of which is terminated by two parallels of latitude. Of these five zones, one is called the torrid or burning zone; two are styled frigid or frozen; and two temperate; names adapted to the degree of heat and cold, to which their situations are liable.

The *torrid zone* is that portion of the earth, over every part of which the sun is perpendicular at some time of the year. The breadth of this zone is nearly 47 degrees; extending from 23 degrees and 28 minutes north, to 23 degrees and 28 minutes south latitude. The equator passes through the middle of this zone, which is terminated on the north by the parallel of latitude, called the tropic of Cancer, and on the south by the parallel called the tropic of Capricorn. The ancients considered this zone as uninhabitable, on account of the heat, which they thought too great to be supported by any human being, or even by the vegetable creation; but experience has long since refuted this notion. Many parts of the torrid zone are remarkably populous; and it has been found that the long nights, great dews, regular rains, and breezes, which prevail in almost every part of the torrid zone, render the earth not only inhabitable, but also so fruitful, that two harvests a year are very common. All sorts of spices and drugs are almost solely produced there; and it furnishes more perfect metals, precious stones, and pearls, than all the rest of the earth. This zone comprehends the East and West Indies, Philippine Islands, the greater part of South America and Africa, and almost all Capt. Cook's discoveries, including the northern parts of New-Holland.

The *frigid zones* are those regions round the poles, where the sun does not rise for some days in the winter, nor set for some days in the summer. The two poles are the centres of these zones, which extend from these points to 23 degrees and 28 minutes; that is they are bounded by the northern and southern parallels of latitude of 66 degrees and 32 minutes. That part that lies in the northern hemisphere is called the *north frigid zone*, and is bounded by a parallel, called the arctic, or north polar circle; and that in the southern hemisphere, the *south frigid zone*, and the parallel of latitude which bounds it is called the antarctic, or south polar circle.

The northern frigid zone comprehends Nova-Zembla, Lapland, part of Norway, Baffin's Bay, part of Greenland, and part of Siberia. The southern frigid zone has no land known to us.

The two *temperate zones* are the spaces contained between the tropics and polar circles.

The northern temperate zone contains almost all Europe, the greater part of Asia, part of Africa, the United States of America, and the British Colonies. The southern temperate zone comprises the south part of New-Holland, (including Botany Bay) Cape of Good Hope, and Cape Horn.

In the frigid zones the longest day is never less than 24 hours; in the temperate zones it is of various lengths; and in the torrid never more than 13 and an half hours.

Climates. The word *climate* has two significations, one *geographical*, the other *astronomical*. In common language, the word is used to denote the difference in the seasons and the temperature of the air. When two places differ in these respects, they are said to be in different climates.

In an *astronomical* sense, a climate is a tract of the earth's surface, included between the equator and a parallel of latitude, or between two parallels, of such a breadth, that the length of the day in one, is half an hour longer than in the other. Within the polar circles, however, the breadth of a climate is such, that the length of the longest day, or the longest time of the sun's continuance above the horizon without setting, is a month longer in one parallel, as you proceed toward the elevated pole, than in the other.

Under the equator the day is always 12 hours long. The longest days gradually increase in length, as you advance either northward or southward from the equator. The space between the equator and a parallel, at the distance of $8^{\circ} 25'$, where the longest days are twelve hours and a half long, is called the first climate; and by conceiving parallels drawn in this manner, at the increase of every half hour, it will be found that there are 24 climates between the equator and each of the polar circles; 48 in the whole.

Under the polar circles, the longest day is 24 hours; and on that day the sun, when lowest, skims the horizon without setting. As you advance from the polar circles to the poles, the sun continues above the horizon for days, weeks, and months, in a constant increase, until you arrive at the poles, where the sun is six months above the horizon; and the whole year may be said to consist of but one day and one night.

There are 30 climates between the equator and either pole. In the first 24, between the equator and either polar circle, the period of increase for every climate is half an hour. In the other six, between either polar circle and its pole, the period of increase for each climate is a month. These climates continually decrease in breadth as you proceed from the equator, as may be seen by attending to the following Table:

TABLE.

Climates.	Longest day where the climate ends.	Latitudes in which the respective climates end.		Names of Countries and remarkable places, situated in the respective climates, north of the Equator.
		d.	m.	
1	12 1-2	8	25	1 The Gold Coast in Africa, Malacca in the E. I. Cayenne in S. America.
2	13	16	25	2 Abyssinia, Siam, Madras, Darien, Barbadoes, Tobago, &c.
3	13 1-2	23	50	3 Mecca, Bombay, Bengal, Canton, Mexico, Jamaica, Guadaloupe.
4	14	30	25	4 Egypt, Delhi, Canary Isles, Florida, Havanna.
5	14 1-2	36	28	5 Gibraltar, Jerusalem, Ispahan, Nankin, Georgia, and the Carolinas.
6	15	41	22	6 Lisbon, Madrid, Asia Minor, Virginia, Maryland, Philadelphia.
7	15 1 2	45	29	7 Rome, Genoa, Constantinople, Caspian Sea, New-York, New-England.
8	16	49	01	8 Paris, Vienna, Nova-Scotia, Newfoundland, Canada.
9	16 1-2	52	00	9 London, Flanders, Prague, Dresden, Cracow, Tartary.
10	17	54	27	10 Dublin, Warsaw, Holland, Hanover, Labrador, New South Wales.
11	17 1-2	56	37	11 Edinburgh, Copenhagen, Moscow, capital of Russia.
12	18	58	29	12 South part of Sweden, Tobolski, capital of Siberia.
13	18 1-2	59	58	13 Orkney isles, Stockholm, capital of Sweden.
14	19	61	18	14 Bergen in Norway, Petersburg in Russia.
15	19 1-2	62	25	15 Hudson's Straits, North America.
16	20	63	24	16 South part of West-Greenland, Siberia.
17	20 1-2	64	06	17 Drontheim in Norway
18	21	64	49	18 Part of Finland in Russia.
19	21 1-2	65	21	19 Archangel on the White Sea, Russia.
20	22	65	47	20 Hecla in Iceland.
21	22 1-2	66	06	21 Northern parts of Russia and Siberia.
22	23	66	20	22 New North Wales in North America.
23	23 1-2	66	28	23 Davis' Straits in ditto.
24	24	66	31	24 Samoieda.
25	1. month	67	21	25 South part of Lapland.
26	2. do.	69	48	26 West-Greenland.
27	3. do.	73	37	27 Zembla Australia.
28	4. do.	78	30	28 Zembla Borealis.
29	5. do.	84	05	29 Spitzbergen, or East-Greenland.
30	6. do.	90	00	30 Unknown.

Latitude. The *latitude* of a place is its distance from the equator, reckoned in degrees, &c. north or south, on the meridian. The greatest latitude is that of the poles, which are 90. degrees distant from the equator. If the place be situated between the equator and the north pole, it is said to be in north latitude; if it lie between the equator and the south pole, it is in south latitude.

The elevation of the pole above the horizon is always equal to the latitude of the place; for to a person situated at the equator, both poles will rest in the horizon. If you travel one, two, or more degrees north, the north pole will rise one, two, or more degrees, and will keep pace with your distance from the equator.

Longitude. Every place on the surface of the earth has its meridian. The *longitude* of a place is the distance of its meridian from some other fixed meridian, measured on the equator. Longitude is

either east or west. All places east of the fixed or first meridian are in east longitude ; all west, in west longitude.

Opposition. A body is in *opposition* with the sun, when the earth is directly between it and the sun.

Conjunction. A body is in *conjunction* with the sun, when they are both in a straight line with the earth, and on the same side of it. If the body is between the earth and the sun, it is said to be in its *inferior* conjunction ; but when the sun is between it and the earth, the body is said to be in its *superior* conjunction.

Quadrature. A body is in *quadrature*, when a line, drawn from the centre of the body to the centre of the earth, makes a right angle with a line, drawn from the centre of the earth to the centre of the sun.

Elongation. The greatest elongation of a heavenly body is its greatest apparent distance from the sun.

Eccentricity. The eccentricity of the orbit of a planet, is the distance from the sun to the centre of the orbit ; the sun not being in the centre, but in one of the foci.

Aphelion. A planet is in its *aphelion*, when it is farthest from the sun.

Perihelion. The *perihelion* is that point in the orbit of a planet, which is nearest to the sun.

A *Digit* is a twelfth part of the diameter of the sun or moon.

Planets are bodies, which revolve about the sun in orbits nearly circular, whose planes make a very small angle with the plane of the ecliptic ; and with a motion according to the order of the signs of the ecliptic, or from west to east.

Satellites, or *moons*, are bodies revolving round the planets, which are called their *primaries* ; and, in company with them, round the sun.

Asteroids are very small bodies, revolving round the sun, in orbits, making larger angles with the plane of the ecliptic, and with motions either *direct*, i. e. from west to east ; or *retrograde*, i. e. from east to west.

Comets are bodies revolving about the sun in extremely elliptical orbits ; whose planes may make any angle with the ecliptic, and whose motions are either direct or retrograde.

THE SOLAR SYSTEM.

The system of heavenly bodies, to which the earth belongs, is composed of the *Sun*, the *Planets*, the *Satellites*, the *Asteroids* and the *Comets*.

The *Sun*, the most glorious of the heavenly luminaries within our view, is the source of light, and heat, and motion, to all the bodies which revolve around it.

The number of *Planets* is seven ; the names of which, according to their nearness to the sun, are *Mercury*, *Venus*, the *Earth*, *Mars*, *Jupiter*, *Saturn*, *Herschel*. The two first are called *inferior* planets ; the four last, *superior*.

The number of Satellites is eighteen. The earth has one; Jupiter four; Saturn seven; Herschel six. These roll round their respective primaries, and accompany them in their annual revolutions round the sun.

The number of Asteroids at present known is four. Their orbits lie between those of Mars and Jupiter. Their names, according to their nearness to the sun, are *Ceres*, *Pallas*, *Juno*, and *Vesta*.

The number of Comets belonging to our system is not yet ascertained.

Astronomers have, at different periods, supposed the principal bodies, which compose the solar system, arranged in different orders. Such a supposed arrangement is called a *system of the world*. The most distinguished of these systems are the *Ptolemaic*, the *Tychonic*, and the *Copernican*.

The **PTOLEMAIC SYSTEM** is so called from Claudius Ptolemy, a celebrated astronomer of Pelusium in Egypt; not because he was the author of it, but because he adopted and endeavored to support it in his astronomical work, called the *Almagest*, which is the only important book of ancient astronomy, that has come into our possession. According to this hypothesis, the earth is immoveably fixed in the centre of the universe, and all the other bodies revolve round it, from east to west, in the space of twenty-four hours, at distances, which increase in the order, in which they are here named, viz. the Moon, Mercury, Venus, the Sun, Mars, Jupiter, Saturn, and the fixed stars. The sun and planets were supposed to be firmly set in separate crystalline spheres, inclosed by a concave one, containing the fixed stars, which would of course be all equally distant from the earth. Above this starry sphere were imagined to be the two crystalline spheres, the *firmum mobile*, communicating motion to all the interior spheres; and, finally, the *empyrean heaven*, or *heaven of heavens*, to which a cubic form was attributed. Beside the above motion, performed in the course of twenty-four hours, the sun and planets were supposed to revolve about the earth in certain stated or periodical times, agreeably to their annual appearances.

This system owed its origin to a partial view of the appearances in the celestial motions. The motions observed were taken to be real. Not suspecting any motion of the earth, which of all things appeared to be most immoveably fixed, and unacquainted with the doctrine of motion in general, philosophers were unable to correct the deceptions of sense, to distinguish apparent from real motion, and, in the latter, to trace the cause of the former. The phenomena to be explained by this system are inconsistent with it, and show its absurdity in a very satisfactory manner. Even in the infancy of astronomy, those, who endeavored to explain the celestial motions on this hypothesis, were exceedingly embarrassed; as the science advanced, difficulties increased, and every new discovery reduced them to the necessity of adopting a new absurdity. And, though ignorance, bigotry and zeal labored to support it, observation and reason long ago triumphed in its explosion and universal rejection by the learned.

The **TYCHONIC** or **BRAHEAN SYSTEM** was invented by Tycho Brahe, a nobleman of Denmark, and one of the most eminent astronomers of his time. Unwilling to admit any motion of the earth, particularly on account of some objections conceived to arise from certain passages of *Scripture*, and struck with the palpable absurdity of some parts of the Ptolemaic system, he endeavored to establish a new one, more agreeable to his faith and astronomy. With Ptolemy, he supposed the earth to be at rest in the centre of the universe, and the moon, the sun, planets, and fixed stars, to revolve about it in twenty-four hours. He also supposed that these bodies had an annual motion around the earth; that the moon's orbit was nearest to the earth; then the sun's; and that Mercury, Venus, Mars, Jupiter and Saturn, revolved about the sun as their centre, and accompanied it as their primary in its annual revolution round the earth. As he denied the earth's diurnal rotation on its axis, he was obliged to admit one of the most gross absurdities of the Ptolemaic hypothesis, that is, the revolution of the whole universe, to its farthest visible limits, about the earth's axis, in the space of a day, produced by the *primum mobile*. Some of his followers, however, varied from his system so far as to ascribe this apparent diurnal motion of the heavens to a real rotation of the earth on its axis, and were therefore called *Semi-Tychonics*. But the annual motion is as evident as the diurnal, and both are now universally admitted by astronomers.

The **COPERNICAN SYSTEM** is so called from Copernicus, a native of Thorn in Royal Prussia, and is the **TRUE SOLAR SYSTEM**. It had been taught by some of the Pythagorean philosophers, but was nearly lost, when Copernicus undertook to restore it, and published new and demonstrative arguments in its favor. It supposes the sun to be in the centre of the system, and all the planets to move round the sun in the order already mentioned. These, together with the asteroids and the comets, form the constituent parts of the Solar System.

This supposition readily solves all the appearances observable in the motion of the planets, and also agrees with the strictest philosophical and mathematical reasoning.

All the planets are opaque and spherical bodies, and receive their light from the sun. Their orbits are not circular, but elliptical, or oval, and have one common focus, which is occupied by the sun. Hence, in their revolutions, they are sometimes nearer to, and sometimes farther from, that luminary. The influence of the sun is the cause of the motions of the planets; and this influence increases as their distance from the sun decreases. Hence, also, we see the reason why the planets move faster, as they approach nearer to the sun, and slower, as they recede from it.

The Sun. The Sun is the centre of the system, and is immensely larger than all the other bodies which compose it. Its diameter is 883,246 miles, and its density (that of the earth being 1) is nearly $\frac{1}{4}$. It weighs 333,928 times as much as the earth, and is 1,380,000 times as large. It appears from calculation, that a body weighing 1 pound on the earth, would weigh 2.77 pounds on the

sun. It revolves, on its axis, in 25 days, 14 hours, 8 minutes; and in its orbit, in the same time, around the common centre of gravity of the system. Its revolution in its orbit, as is that of all the planets, is from west to east. The plane of its orbit is not coincident with that of any of the planets; but is nearest to coincidence with the orbit of Venus. The axis of the sun makes an angle of about $82\frac{1}{2}$ degrees with the plane of the earth's orbit. The sun, though to the naked eye it appears so extremely bright, yet, with a telescope of but very small powers, is discovered to have dark spots on its surface. These were first observed by Galileo, in 1611. They are very uncertain in their number. Sometimes none are visible: frequently, however, 20, 30, and 40, are seen at one time. In 1625, Scheiner, a German astronomer, counted 50 at a single observation. These spots are also very various in their magnitudes. Some are barely perceptible. Others have been seen so large, as to be capable of covering the continents of Asia and Africa. That which appeared in 1779, was more than 31,000 miles in diameter, and was visible to the naked eye. They, of course, are not permanent, nor regular, in their number, shape, magnitude, nor duration. They are called by astronomers, *macule*; and, when they disappear, the places which they occupy generally become brighter than the rest of the sun, and are called *facule*. By means of these spots, the revolution of the sun on its axis was discovered. Every spot, if it continues long enough without being dissolved, appears to enter the sun's disc on the east side; to go from thence with a velocity continually increasing, till it has gone half its way; and then to move slower and slower, till it goes off at the west side: after which, it disappears about the same space of time which it appeared, and then enters upon the east side again, and pursues generally the same course. It follows from these facts, that the spots are attached to the surface of the sun; that the sun has a revolution on its axis; and that the time which elapses between the first appearance of a spot on the sun's eastern disc, and its re-appearance there, is the period of such a revolution. The path of the sun, in his revolution round the centre of gravity of the solar system, is very irregular; but his distance from this centre is never greater than the sun's diameter. It is not ascertained whether the sun has an atmosphere. There is, however, an appearance in the heavens, termed the *scimita luminosa*, or *zodiacal light*, which is now generally supposed to be owing to the atmosphere of the sun. This was discovered by Cassini, in 1683. In northern latitudes, it is most conspicuous after the evening twilight, about the latter end of February; and before the morning twilight, in the beginning of October. It is very extensive, and reaches beyond the orbit of Venus, but not so far as that of the earth.

Mercury. Mercury is the smallest of the planets. It is 3224 miles in diameter, and 36,583,825 miles from the sun. Its bulk is to that of the earth, nearly as 1 to 15; and its weight, as 0.165 to 1. A body weighing 1 pound on the earth, would weigh 1.03 pounds on Mercury. It is not known whether it revolves on its axis; yet, as all the other planets do, it is naturally concluded that this does

also. It revolves round the sun in 87 days, 23 hours ; or little less than 3 months. It emits a very bright, white light. Mercury can be seen only a few days at a time. It is visible in the evening about the eastern elongation. It then disappears about 6 or 7 weeks, after which time it may be seen in the morning, rising before the sun. In about 10 weeks, it re-appears in the west, setting after the sun. It has no moon, nor any spots on its surface. Its hourly motion in its orbit is 111,000 miles. The heat near the poles of Mercury is not probably greater than that of the torrid zone. Near its equator, water would continually boil, and most inflammable substances would be destroyed, or converted into vapor.

Venus. This is the most beautiful of the celestial luminaries, and the only star that is ever visible in the day time. This happens once in about 8 years ; when the planet is at its greatest north latitude, and near its farthest distance from the sun. Venus is 7687 miles in diameter, and its mean distance from the sun is 68,368,008 miles. Its bulk, compared with that of the earth, is nearly as 8 to 9 ; and its weight, as 0.89 to 1. A body weighing 1 pound on the earth, would weigh 0.98 of a pound in Venus. Its diurnal rotation on its axis is performed in 23 hours, 22 minutes, and it moves in its orbit 81,000 miles an hour. When Venus appears to the west of the sun, it rises before him in the morning, and is called the morning star ; and when it appears to the east of the sun, it shines in the evening, after the sun sets, and is called the evening star ; being in each situation, alternately, about 290 days.

Mercury and Venus are inferior planets. Their orbits are within that of the earth. Mercury never appears more than $28^{\circ} 20'$ from the sun, nor Venus more than $47^{\circ} 48'$. Of course, they and the sun are never in opposition, i. e. on opposite sides of the earth. They have both, however, an *inferior* conjunction, when they pass between the earth and the sun ; and a *superior* conjunction, when they pass behind the sun. In their inferior conjunctions, they sometimes pass directly over the sun's disc. This passage is called a *transit*. In their transits, they appear like small, round, black spots, moving rapidly over the face of the sun. This appearance proves them to be opaque bodies. The transits of Venus are not so frequent as those of Mercury. The last transit of Venus was in 1769 ; the next will be in 1874. The two last of Mercury were in 1802 and 1815 ; the next will be in 1822.

The Earth. The Earth is a spherical body. Its figure is very nearly that of a perfect sphere, or globe, notwithstanding the little inequalities of its surface ; as the largest mountains bear no greater proportion to the bulk of the earth, than the smallest grain of sand bears to a common globe. The sphericity of the earth is obvious from the following considerations : 1. Such a figure is best adapted to motion. 2. From analogy ; as all the other planets and heavenly bodies are spherical. 3. To people on shore, the mast of a ship appears before the hull ; but, were the earth a plane, the hull would appear long before the mast, by reason of the much greater angle which it subtends. 4. To people going to sea, the land disappears, though near enough to be visible, were it not for the convexity of

the water. 5. The earth has been sailed round by Magellan, Drake, Dampier, Anson, Cook, and since by many others. This could not have happened, if the earth had not been of a globular figure. 6. The boundary of the earth's shadow upon the moon, in a lunar eclipse, is always circular: a spherical body only can produce a circular shadow. The earth is not a perfect sphere, but an *oblate spheroid*; that is, its equatorial diameter is longer than its axis. The difference of these diameters is about 34 miles. The mean diameter of the earth, or the diameter in latitude 45 degrees, is 7928 miles. Of course, the equatorial diameter is 7945 miles, and the length of the earth's axis is 7911. The equatorial circumference of the earth is about 24,970 miles; its mean circumference, in latitude 45 degrees, is 24,917; and its meridional circumference, 24,865. The number of square miles on the earth's surface is 197,459,101; and 260,909,292,265 is the number of cubic miles contained in the earth. It performs a rotation on its axis once in 24 hours. The earth's distance from the sun is 94,507,428 miles. Of course, the diameter of its orbit is 189,000,000 miles, and its circumference about 594,000,000 miles. The time in which the earth makes a revolution round the sun, is 365 days, 5 hours, 48 minutes, 48 seconds. Its hourly motion in its orbit is 75,222 miles, which is 140 times greater than that of a cannon ball; which moves about 8 miles in a minute, and would be 22 years, 124 days, 6 hours, in passing from the earth to the sun.

The earth is surrounded with a thin, invisible, elastic fluid, called *air*, the whole body of which forms what is called the *atmosphere*. It being an elastic fluid, is capable of compression; on which account, the lower parts of the atmosphere are denser than the upper parts, and the density gradually diminishes, the higher you ascend. The density of the air is not always the same, it being subject to be expanded by heat and contracted by cold. In its mean state it is found to be about 850 times lighter than water. But, notwithstanding the air is so extremely rare, it is capable of producing very considerable effects upon the rays of light as they pass through it, both by reflection and refraction. To the atmosphere we are indebted for what is called *twilight*; and were it not for this, we should be involved in total darkness, the instant after the sun is set; and there would be a sudden transition from darkness to light, at the rising of the sun, which would be extremely prejudicial to the eyes. From the time at which twilight begins and ends, the beginning and end are found to be when the sun is about 18° below the horizon.

The height of the atmosphere is not yet ascertained. The beginning and ending of twilight, indeed, show that the height, at which the atmosphere begins to refract the sun's light, is about 44 or 45 miles. But this may not improbably be owing to the height to which the aqueous vapors are carried. That it actually extends much higher, is proved by the fact, that atmospheric meteors have often been seen at the height of 90 miles.

Notwithstanding the seeming inequality in the distribution of light and darkness, it is certain, that throughout the whole world, there is nearly an equal proportion of light diffused on every part, if we except what is absorbed by clouds, vapors, and the atmosphere itself.

The equatorial regions have indeed the most intense light during the day, but the nights are long and dark ; while on the other hand, in the northerly and southerly parts, though the sun shine less powerfully, yet the length of time that it appears above the horizon, with the longer duration of twilight, makes up for the seeming deficiency.

Mars. The diameter of Mars is 4189 miles, and its mean distance from the sun is 144,000,023 miles. Its annual revolution occupies 1 year, 321 days, 23 hours, 31 minutes, and its rotation on its axis 24 hours, 39 minutes, 22 seconds. It moves in its orbit at the rate of 50,000 miles an hour. Its bulk, compared with that of the earth, is as 7 to 24 ; its density, as 7 to 10 ; and its weight as 49 to 240. One pound on the earth would weigh 0.34 in this planet. Mars is of a fiery red color. Mars is an oblate spheroid. It is an opaque body, never appearing horned like Mercury and Venus, but sometimes gibbous. It has an atmosphere of considerable extent.

Jupiter. Jupiter, the largest of the planets, is 89,170 miles in diameter, and 491,702,301 miles from the sun. Its bulk, compared with that of the earth, is nearly as 1400 to 1 ; its density as 5 to 22 ; and its weight as 312 to 1. One pound on the earth would weigh 2.33lbs. in Jupiter. Its shape is that of an oblate spheroid. Its ecliptic and equator are nearly coincident ; that is, its axis is nearly perpendicular to the plane of its orbit. Hence this planet has no sensible change of seasons. It revolves on its axis in 9 hours, 55 minutes ; and round the sun in 11 years, 314 days, 18 hours, 45 minutes. Its hourly motion in its orbit is 30,000 miles. Jupiter is surrounded by faint substances, called *belts*. These were discovered in 1665. They are parallel to each other, and to the equator of the planet. So many changes appear in them, that they are generally supposed to be clouds. The quantity of light and heat enjoyed by Jupiter, is to that enjoyed by the earth, as 37 to 1000.

Saturn. The diameter of Saturn is 79,042 miles, and its distance from the sun is 901,668,908 miles. Its bulk is proportioned to that of the earth, nearly as 1000 to 1. Its density, as 26 to 288, and its weight as 98 to 1. A body weighing 1lb. on the earth, would weigh 1.02 on this planet. It is an oblate spheroid, its axis being to its equatorial diameter as 10 to 11. It revolves on its axis in 10 hours, 16 minutes, 2 seconds, and round the sun in 29 years, 166 days, 15 hours, 25 minutes. Its hourly motion in its orbit is about 22,000 miles. The intensity of the sun's light and heat is about $9\frac{1}{2}$ times greater at the earth than at Saturn. This planet has belts discoverable on its disc ; but they are not so large or numerous as the belts of Jupiter. The most remarkable appearance, however, attending this, or indeed any of the planets, is a large ring, entirely separated from the planet itself, and yet completely surrounding it. The plane of the ring coincides with the plane of Saturn's equator, so that the axis of the planet makes a right angle with it. The breadth of the larger ring is 7,318 miles ; of the smaller 19,024. The space between the rings is 2,977 miles. There is no visible connexion between them. The thickness of the ring is probably less than 1000 miles.

Herschel. This planet is called in England *Georgium sidus*, on the continent of Europe, *Uranus*, and generally in this country *Herschel*. There is no reason to believe that it had ever been observed by any inhabitant of the earth before the 13th of March, 1781, when it was discovered by Dr. Herschel. Its diameter is 35,112 miles, and its distance from the sun, is 1,803,534.392. Its hourly motion in its orbit is 15,000 miles. Its bulk, compared with that of the earth, is nearly as 90 to 1, and its weight as 16.84 to 1. A body on the earth weighing 1lb. would weigh 0.93lb. in this planet. The period of its revolution round the sun is 83 years, 150 days, 18 hours. It has not yet been determined whether it revolves on an axis. Yet there can be no doubt of this fact, as its shape is that of an oblate spheroid. The quantity of light and heat communicated to the earth by the sun, is at least 360 times as great, as that enjoyed by Herschel; and the diameter of the sun, as seen from it, is not more than twice the apparent diameter of the planet Venus, as seen from the earth. The plane of its orbit is nearly coincident with the plane of the ecliptic. Owing to its immense distance, few discoveries have been made respecting it.

Satellites. A satellite, or moon, is a body revolving round a planet, and, in company with the planet, round the sun. Of these there are 18 in our system, distributed in the following manner: 1 to the earth; 4 to Jupiter; 7 to Saturn; and 6 to Herschel.

The Moon. The moon's diameter is 2180 miles. This is to the diameter of the earth nearly as 20 to 73. Its surface is to that of the earth as 1 to 13 $\frac{1}{4}$; its bulk as 1 to 49; its density as 5 to 4 nearly; and its weight as 1 to 39. Its mean distance from the earth is 239,029 miles, which is to the sun's mean distance nearly as 1 to 390. The moon revolves round the earth in 27 days, 7 hours, 43 minutes. The interval of time between one new moon and the next, is 29 days, 12 hours, 44 minutes. The side of the moon, which is towards the earth, during its day, receives light both from the sun and from the earth; and, during its night, only the light of the earth. The other side of the moon has, half of the time, the light of the sun; and the other half is in total darkness. Many astronomers have given maps of the face of the moon; but the most celebrated are those of Hevelius in his *Selenographia*, in which he has represented the appearance of the moon in its different states, from the new to the full, and from the full to the new. The spots, visible on the moon, are occasioned by the mountains and vallies on its surface. The highest mountain observed by Herschel is 1 $\frac{4}{100}$ mile. Very few of the others are more than half a mile. It is not determined whether the moon has an atmosphere. No clouds or vapors, however, can be discovered near its surface. The light of the moon condensed by the best mirrors produces no sensible effect upon the thermometer. The surface of the earth being about 13 times greater than that of the moon, it affords 13 times more light to the moon, than the moon does to us.

It is remarkable, that, when the moon is full near the middle of September, there is less difference between the times of two successive risings, than there is, when she is full at any other season of the year. By this means she affords an almost immediate supply of

light, after sunset, for a whole week together, which is very beneficial at that season for gathering in the fruits of the earth. Hence this full moon is called the *Harvest Moon*.

Eclipses. An eclipse of the moon is caused by its entering into the earth's shadow, and consequently it must happen at the full moon, or when she is in opposition to the sun, as the shadow of the earth must lie opposite to the sun. An eclipse of the sun is caused by the intervention of the moon between the earth and sun, and therefore it must happen when the moon is in conjunction with the sun, or at the new moon.

The greatest number of eclipses, which can happen in a year, is seven; and when this happens, five will be of the sun, and two of the moon. The least number which can happen is two, and these must be both solar; for in every year there must be two solar eclipses. The mean number in a year is about four.

In a total eclipse of the sun, which is a most sublime spectacle, the planets, and some of the brightest of the fixed stars, have been seen.

Jupiter's Moons. These are four in number, and were discovered by Galileo, Jan. 8, 1600, who called them *Medicea sidera*. The progressive motion and velocity of light has been discovered by observations on the satellites of Jupiter. It is found that light takes up $16\frac{1}{2}$ minutes in passing over the diameter of the earth's orbit, which is about 190 millions of miles. This is nearly at the rate of 200,000 miles a second.

Satellites of Saturn. These were discovered by several philosophers between the years 1665 and 1788.

Satellites of Herschel. These are six in number, and were all discovered by Herschel in 1787, 1790, and 1794. Of all the bodies hitherto described, the satellites of Herschel alone, revolve from east to west, or in a retrograde direction.

*Asteroids.** These bodies were entirely unknown till the commencement of the present century. They appear of the size of stars of the 8th magnitude. It was owing to their diminutive size, that Herschel refused them a place among the planets, and gave them the name of Asteroids, though they are really primary planets, revolving round the sun.

Ceres was discovered by Joseph Piazzi, at the royal observatory at Palermo, January 1, 1801. It appears like a star of the 7th or 8th magnitude. All the asteroids are too small to be measured with precision. Their orbits are all between those of Mars and Jupiter. Ceres revolves in 4 years, 7 months, 10 days. Its mean distance from the sun is 263,633,000 miles.

Pallas was discovered by Dr. Olbers of Bremen, March 28, 1802. Its periodical revolution is 4 years, 7 months, 11 days; and its distance from the sun 267,438,000 miles. The orbits of Ceres and Pallas are said to cross each other.

* From *aster* star, and *oides* appearance.

Juno was discovered by Mr. Harding, at Lilienthal, near Bremen, September 1st, 1804. Its periodical revolution is a little longer than those of Ceres and Pallas. Its diameter is 119 miles. Its distance from the sun is 286,541,000 miles.

Vesta was discovered by Dr. Olbers, March 29, 1807. It may be seen by the naked eye, like a star of the fifth or sixth magnitude, and very much like the planet Herschel. Its periodical revolution is 3 years, 2 months, 5 days, and its mean distance, 206,596,000 miles. These elements all require to be corrected by future observations.

Thus, of the 30 bodies, beside the comets, belonging to our system, only eight were known to the ancients; viz. the Sun, Mercury, Venus, the Earth, the Moon, Mars, Jupiter, and Saturn. Of the remaining 22, 9 were discovered in the 17th century; viz. Jupiter's four moons, by Galileo: Saturn's fourth, by Huygens; his first, second, third, and fifth, by Cassini: 9 in the 18th century; viz. Saturn's sixth and seventh moons, the planet Herschel, and his six moons, all by Dr. Herschel: and four already in the 19th; viz. Ceres, Pallas, Juno, and Vesta.

Comets. Comets are bodies revolving in very eccentric ellipses about the sun in one of the foci. They are popularly called *blazing stars*, having this to distinguish them from other stars, that they are usually attended with a long train of light, always opposite to the sun, and of a fainter lustre the farther it is from the body. When a comet is east of the sun, and moving from it, it is said to be *bearded*; because the light precedes the body or *nucleus* of the comet like a beard. When a comet is west of the sun, and sets after it, it is said to be *tailed*; because a train of light follows it, in manner of a *tail*. When the sun and the comet are on opposite sides of the earth, the train is principally hid behind the body of the comet, and the little that appears has the form of a border of hair, or *coma*, whence it is called *hairy*; and whence the name *comet* is derived. The substance of the bodies of comets must be extremely solid, or they would be dissipated in their perihelion, or nearest approach to the sun. According to Sir Isaac Newton, the comet of 1680 endured a heat 28,000 times as great as that of the sun, in midsummer; or about 9000 times as great as the heat of boiling water; or 2000 times as great as the heat of red hot iron. The same author calculates that a globe of red hot iron, as large as the earth, would not cool in 50,000 years. If, then, the comet be supposed to cool 100 times faster than red hot iron; yet, since its heat was 2,000 times greater, if of the bigness of the earth, it would not cool in a million of years. Newton supposes the tail to be a thin vapor emitted by the nucleus, ignited by the sun. Little is ascertained respecting the magnitudes of comets. Many of them appear no larger than stars of the first magnitude, and others still less. It is supposed that some of the solar eclipses, recorded in history, have been occasioned by the interposition of comets between the earth and the sun; as it is found by calculation that the moon could not have occasioned them at the seasons when they are said to have happened.

The number of comets belonging to our system has never been ascertained. Conjecture has limited it to 450. The elements of 97 of them have been determined with some degree of accuracy. The angles, which their orbits made with the plane of the ecliptic, were found to vary from 1 to 88 degrees. The perihelion distance of the comet of 1351 was just equal to the earth's mean distance. The perihelion distance of 24 of the others, was greater than this, and of the remaining 72, less. The least distance of the comet of 1680, was only 122,000 miles from the surface of the sun; while its greatest distance was 12,189,000,000 miles. The perihelion distance of the comet of 1759 is about 52,000,000 miles; its aphelion distance 3,342,500,000. These are the only two comets whose periods are known. That of the latter is about 76 years. It appeared in 1759, 1682, 1607, 1531, and 1456; and will probably re-appear in 1835. The period of the former is 575 years. It appeared in 1680, 1106, 531, and in 44, before Christ, and probably will not re-appear, till 2255. There is also strong reason to conclude, that the comet of 1264 was the same with that of 1556. If so, its period is 292 years; and it ought to appear again in 1848. Dr. Halley imagined that the comet of 1661 was the same with that of 1532; and that its period was 129 years; but in 1790, it was found to have violated its engagements. Dr. Halley had the honor first to foretel the return of a comet. It was the comet of 1759. The velocity of a comet increases as it approaches the sun. That of 1680, in its perihelion, moved with the amazing velocity of 880,000 miles an hour. The comet of 1744 had a tail of the length of 23,000,000 of miles; and that of 1759, of more than 40,000,000. The orbits of comets make very different angles with the plane of the ecliptic; 50 out of the 97, whose elements have been calculated, had a direct motion, or from west to east; and 47 from east to west. The comet of 1680, on the 11th of November, at 1 hour, 6 minutes, P. M. was only 4000 miles north of the orbit of the earth. If the earth at that time, had been in the part of its orbit nearest to the comet, their mutual gravitation must have caused a change in the plane of the earth's orbit, and in the length of our year. Dr. Halley remarks that, if so large a body, with so rapid a motion, as that of this comet near its perihelion, were to strike against the earth, a thing by no means impossible, the shock might reduce this beautiful frame to its original chaos. Whiston supposed the deluge to have been owing to its near approach to the earth. Whether this was the fact, however, cannot be ascertained. We only know that it was near its perihelion, at the time of the deluge, according to the Hebrew chronology. He also conjectured, that it would, probably, be the instrumental cause of the final conflagration. Mr. Cole, in his *Theory of Comets*, advances an hypothesis, which, in some cases, may perhaps be true. He supposes, that the orbit of a comet is not an ellipse; but that, when it passes its perihelion, it acquires so great a velocity, that it continues to recede from the sun, till it comes within the attraction of some fixed star: that this attraction may give it a new direction, and increase its velocity anew, till it performs its perihelion around that star, as another sun; when it may again fly off, and thus visit many different systems.

The following table, taken, with some alterations, from Clarke's Commentary on the Bible, will present a full and interesting summary of the principal bodies in our solar system, together with their magnitudes, distances, periods, &c.

SUN AND PLANETS.

Names.	Diamet	Bulk, the earth being 1	Weight, the earth being 1.	Time of rota- tion on their axis.	Inclination of axis to Equator.	Hourly motion in their orbits	Wt. of lb at surface
				d. h. m. s.			
Sun	883,246	1,380,000	533,928	25 14 8 0			27 7
Mercury	3,224	$\frac{1}{13}$	0.1654	unknown	unknown	111,256	1.0335
Venus	7,687	$\frac{8}{9}$	0.8899	23 22 0	75° 00'	81,398	0.9771
Earth	7,928	1	1	23 56 4	23 28	75 222	1.0000
Moon	2,180	$\frac{1}{29}$	$\frac{1}{39}$	27 7 43 5	1 43	2,335	0.1677
Mars	4,189	$\frac{7}{14}$	0.0875	1 0 39 22	28 42	56,212	0.3355
Jupiter	89,170	1400	312.1	9 55 33	3 22	30,358	2.3287
Saturn	79,042	1000	97.76	10 16 14	30 00	22,351	1.0154
Sat. Ring	204,883			10 32 15	30 00	22,351	
Herschel	35,112	90	16.84	unknown	unknown	15,846	0.9285

Names	Mean distances from the Sun	Proportion of Light & Heat.	Inclination of orbits to the ecliptic.	Periodical Rev- olution.	Sidereal Revolu.
			° ' "	y. d. h. m. s.	y. d. h. m. s.
Mercury	36,583,825	6.25	7 0 0	0 87 23 14 53	0 87 23 15 40
Venus	68,360,058	2.04	3 23 45	0 224 16 41 27	0 224 16 49 11
Earth	94,507,428	1.		1 0 5 48 48	1 0 6 9 12
Moon	94 507.428	1.	5 9 0	0 27 7 43 5	0 27 7 43 12
Mars	144 000.023	0.44375	1 51 0	1 321 22 18 27	1 321 23 30 36
Jupiter	491.702,301	0.036875	1 19 15	11 315 14 39 2	11 317 14 27 11
Saturn	901,668,908	0.01106	2 30 45	29 164 7 21 50	29 176 14 36 43
Sat Ring	901,668,908	0.01106		29 164 7 21 50	29 176 14 36 43
Herschel	1,803 534,392	0.00276	0 48 02	83 294 8 39 0	84 29 0 29 0

Beside the bodies named in the above Table, there are belonging to the solar system, the 4 Asteroids, and 17 Satellites of Jupiter, Saturn and Herschel, which have already been described.

OF THE FIXED STARS.

Those stars, which, when seen by the naked eye, or through telescopes, keep constantly in the same situation with respect to each other, are called *fixed stars*. They are easily distinguished from the planets by their twinkling. They appear of various magnitudes. This may arise from their different sizes, or distances, or both. Astronomers have distinguished them, from their apparent magnitudes, into six classes. The *first* contains those of the largest apparent size; the *second*, those which appear next in bigness; and so on to the sixth, which includes all those that can just be seen without

telescopes. Those, which can be seen only by the help of the telescope, are called *telescopic* stars. This classification, however, cannot be very exact; for there are almost endless varieties in their apparent size, color, or brilliancy; and, in some of these respects, many stars appear to undergo changes, so that the same star may be reckoned by some astronomers in the first class, and by others in the second or third.

Number of stars of each magnitude.

Place.	Magnitudes.						
	1st	2d	3d	4th	5th	6th	Total.
In the Zodiac	5	16	44	120	183	646	1014
In the Northern Hemisphere	6	24	95	200	291	635	1251
In the Southern Hemisphere	9	36	84	190	221	323	865
Total	20	76	223	512	695	1604	3130

The stars in the preceding table are so numerous, that it would be impossible to furnish names for them all and retain those names in the memory. To remedy this inconvenience, the ancients distributed them into *constellations*, to which they gave the names of birds, beasts, fishes, &c. from an imaginary resemblance between the forms of the constellations, and of those animals. The stars of each constellation are numbered, according to their magnitude, by the letters of the Greek alphabet. α is the largest, β the second, γ the third, &c. This division of the heavens was very ancient; for some of the constellations are mentioned by Homer and Hesiod, by Amos and Job. The following are the names of the constellations in the heavens, which are usually delineated on the celestial globe.

I. Constellations of the Zodiac.

Aries
Taurus
Gemini
Cancer
Leo
Virgo
Libra
Scorpio
Sagittarius
Capricornus
Aquarius
Pisces

Bootes
Draco
Cepheus
*Canes venaticis, viz. }
Asterion and Chara }
*Cor Caroli
Triangulum
*Triangulum minus
*Musca
*Lynx
*Leo Minor
*Coma Berenices
*Camelopardalis
*Mons Menelaus

*Taurus Poniatowski
Lyra
*Vulpecula et Anser
Sagitta
Aquila
Delphinus
Cygnus
Equuleus
*Lacerta
Pegasus
Andromeda

II. Constellations north of the Zodiac.

Ursa Minor
Ursa Major
Perseus
Auriga

Corona Borealis
Serpens
*Scutum Sobieski
Hercules
Serpentarius vel }
Ophiuchus }

III. Constellations south of the Zodiac.

*Phenix
*Officini sculptoria
Eridanus
*Hydrus
Cetus
*Formax Chemica

Constellations south of the Zodiac.	Canis Minor	Centaurus
*Horologium	*Chameleon	Lupus
*Reticulis Rhomboid-	*Pyxis Nautica	*Quadra Euclidis
alis	*Piscis Volans	*Triangulum Australe
*Xiphias	Hydra	Ara
*Celapraitellis	*Sextans	*Telescopium
Lepus	*Robur Carolinum	Corona Australis
*Columba Noachi	*Machina Pneumatica	*Pavo
Orion	Crater	*Indus
Argo Navis	Corvus	*Microscopium
Canis Major	*Crosiers	*Octans Hadlianus
*Equuleus Pictorius	*Musca	*Grus
*Monaceros	*Apis Indica	*Toucan
	*Circinus	Piscis Australis

The constellations which have the mark * against them are modern, the others are ancient.

The whole number of the constellations is 90. Of these, 48 are ancient, and 42 modern; 33 north of the Zodiac, 12 in the Zodiac, and 45 south of it. Those stars, which have never been arranged into constellations, are called *unformed* stars. Those, whose distance from the nearest pole is less than the latitude of the place, never set below the horizon, and are called *circumpolar* stars. The circles, which they appear to describe in consequence of the earth's rotation, are called *circles of perpetual apparition*. Those stars, whose distance from the farthest pole is less than the latitude of the place, never rise above the horizon. They also receive the same name; and the circles, which they appear to describe, are called *circles of perpetual occultation*. The real number of the fixed stars cannot be ascertained. Before the invention of the telescope, it was not supposed to surpass 3000. But since that event it has been found, that, to the greater perfection that instrument is brought, the greater, in a very high proportion, is the number of the stars, which may be observed. Galileo found 80 stars in the belt of Orion's sword. De Rheita counted 188 in the Pleiades, and more than 2000 in the constellation of Orion, of which only 78 are visible to the naked eye. The fixed stars, as seen through a telescope, are found to be collected in clusters. When a small magnifying power is used, these clusters appear like small, light clouds, and hence have been called *nebulae*. Dr. Herschel has given a catalogue of more than 2000 *nebulae* which he has discovered. When these *nebulae* are examined with a telescope of great magnifying power, they are found to consist of immense multitudes of stars. Dr. Herschel is of opinion that the starry heaven is replete with these *nebulae*; that each nebula is a distinct and separate system of stars; and that each star is the sun or centre of its own system of planets. That bright, irregular zone, which we call the *Milky Way*, he has very carefully examined, and concludes that it is the particular nebula to which our sun belongs. In examining it, in the space of a quarter of an hour, he has seen the astonishing number of 116,000 stars pass through the field of view of a telescope of only 15' aperture; and,

in 41 minutes, he saw 258,000 stars pass through the field of his telescope. It is probable that each nebula in the heavens is as extensive, and as well furnished with stars, as the milky way; that many nebulæ, within the reach of the telescope, have not yet been discovered; and that very many more lie beyond its reach, in the remote regions of the universe. If this be true, the number of 75,000,000, which La Lande assigned, as the whole number of the fixed stars, will be seen to fall far short of the truth.

The distance of the fixed stars, however, is so great, that their number will, probably, never be calculated with certainty. The diameter of the earth's orbit is 190 millions of miles. Of course, when the eye is placed at one end of this diameter, it is so much nearer given stars, than when at the opposite end. Yet this immense distance makes no apparent difference in the size of any of them, nor any difference in their relative situations. When seen through the telescope, also, their size, instead of being increased, is diminished. Dr. Bradley estimates the distance of the nearest fixed star to be 80,000 times that of the sun. This estimate is undoubtedly less than the truth. Light passes from the sun to the earth in about $8\frac{1}{4}$ minutes. It would be a year and a fifth in passing from the nearest fixed star to the earth. The distance of the nearest fixed star is estimated to be more than 5,000,000,000,000 miles from us; a distance which a cannon ball, moving at the rate of 480 miles an hour, would not pass over in less than 1,180,000 years. Astronomers generally, however, have calculated the distance of the *nearest* fixed star at 400,000 times the diameter of the earth's orbit.

The *real magnitudes* of the fixed stars are not known. In astronomical calculations they are generally supposed to be equal to that of the sun.

With regard to their *nature*, we can make nearer approaches to certainty. We know that they shine by their own light; 1st, Because reflected light is too feeble to shine at all to such an immense distance, and much more with the bright lustre of the fixed stars; 2dly, Because, if they borrowed their light from any large, luminous body, which was near them, that body would itself be visible. They resemble the sun in several other particulars. Many of them are observed to revolve on an axis; to have spots on their surface, and changeable spots, too, like those of the sun. Hence they are very fairly concluded to be suns, each one a centre of light, and warmth, and motion, for its own system of planets. Many of the stars, which appear single to the naked eye, Dr. Herschel has discovered to be double, treble, and even quadruple. He has observed about 700 of this description. Several stars, observed by ancient astronomers, are not now to be found; and several are now observed, which do not appear in their catalogues. The first new star, of which we have any accurate account, is that discovered by Cornelius Gemma, on November 8, 1572, in the chair of Cassiopea. It exceeded Sirius in brightness, and was seen at mid-day. At first, it appeared larger than Jupiter; but gradually decayed, and after 16 months entirely disappeared. Kepler discovered another in October, 1604, near the heel of the right foot of Serpentarius. It was extremely brilliant,

and larger than Jupiter. It was observed to be every moment changing into some of the colors of the rainbow, except while near the horizon, when it was white. It gradually diminished, till October, 1605, when it came too near the sun to be visible, and was never seen afterwards. A new star appeared in the neck of the Whale, in 1596, and after three months disappeared. It was discovered again in 1637, and after an occultation of about 9 months, became again visible. The star *Algol* in Perseus has a periodic variation every 2 days 21 hours. Its greatest brightness is of the second, its least, of the fourth magnitude. It changes from the second to the fourth in $3\frac{1}{2}$ hours, and back again in the same time, and retains its full size for the remaining 2 days 14 hours. Many others undergo similar changes. It ought also to be remarked, that the fixed stars are now generally believed to have proper motions of their own, and that Dr. Herschel concludes, from a great variety of observations, that our system is moving towards a point in the heavens, near to the star called λ *herculis*.

If each of the fixed stars is a sun to a system, and every planet in all these systems is inhabited, like ours, with intelligent beings, as is supposable, what sublime ideas, what amazement, does such a view of the works of the infinite CREATOR inspire! "Oh Lord, how manifold are thy works! in wisdom hast thou made them all."*—"The heavens declare the glory of God: and the firmament sheweth his handy work. Day unto day uttereth speech, and night unto night sheweth knowledge. There is no speech nor language where their voice is not heard."†

THE GLOBES, AND THEIR USE.

A globe is a round body, whose surface is every where equally remote from the centre. But by the *globes*, sometimes called *artificial globes*, is here meant two spherical bodies, whose convex surfaces are supposed to give a true representation of the earth and the apparent heavens. One of these is called the *terrestrial*, the other the *celestial* globe. On the convex surface of the terrestrial globe, all the parts of the earth and sea are delineated in their relative size, form and situation.

On the surface of the celestial globe, the images of the several constellations and the unformed stars are delineated, and the relative magnitude and position, which the stars are observed to have in the heavens, are carefully preserved.

In order to render these globes more useful, they are fitted up with certain appurtenances, whereby a great variety of useful problems are solved in a very easy and expeditious manner.

The *brazen meridian* is that ring in which the globe hangs on its axis, represented by two wires passing through its poles. The circle is divided into four quarters, of 90 degrees each. In one semi-circle, the divisions begin at each pole, and end at 90 degrees of the

* Ps. civ. 24.

† Ps. xix. 1, 2, 3.

equator, where they meet. In the other semicircles, the divisions begin at the equator, and proceed thence toward each pole, where they end at 90 degrees. The graduated side of this brazen circle serves as a meridian for any point on the surface of the earth, the globe being turned about till that point comes under it.

The *hour circle* is a small circle of brass, divided into 24 hours, the quarters and half quarters. It is fixed on the brazen meridian, with its centre over the north pole; to the axis is fixed an index, that points out the divisions of the hour circles, as the globe is turned round its axis. Sometimes the hour circle, with its divisions, is described or marked about the north pole on the surface of the globe, and is made to pass under the index. In some of Adams' globes, the equator is used as an hour circle, over which is placed a semicircular wire, carrying two indices, one on the east side of the brazen meridian, and the other on the west.

The *horizon* is represented by the upper surface of the wooden circular frame encompassing the globe about its middle. On this wooden frame there is a kind of perpetual calendar, contained in several concentric circles. The inner one is divided into four quarters of 90 degrees each; the next circle is divided into the 12 months, with the days in each according to the new style; the next contains the 12 equal signs of the zodiac or ecliptic, each being divided into 30 degrees; the next, the 12 months and days according to the old style; and there is another circle, containing the 32 points of the compass, with their halves and quarters. Although these circles are on most horizons, yet they are not always placed in the same order.

The *quadrant of altitude* is a thin slip of brass, one edge of which is graduated into ninety degrees and their quarters, equal to those of the meridian. To one end of this is fixed a brass nut and screw, by which it is put on and fastened to the meridian; if it be fixed in the zenith, or pole of the horizon, then the graduated edge represents a vertical circle passing through any point of the horizon, to which it is directed.

Beside these, there are several circles, described on the surfaces of both globes; as the *equator*, *ecliptic*, *circles of longitude and right ascension*, the *tropics*, *polar circles*, *parallels of latitude and declination*, on the celestial globe; and on the terrestrial, the *equator*, *ecliptic*, *tropics*, *polar circles*, *parallels of latitude*, *hour circles* or *meridians*, to every 15 degrees; and on some globes, the *spiral rhumbs*, flowing from several centres, called *fles*.

In using the globes, keep the graduated side of the meridian towards you, unless the problem requires a different position. With respect to the terrestrial, we are to suppose ourselves situated at a point on its surface; with respect to the celestial, at its centre. The motion of the former represents the real diurnal motion of the earth; that of the latter, the apparent diurnal motion of the heavens.

The following PROBLEMS, as being most useful and entertaining, are selected from a great variety of others, which are easily

solved with a *terrestrial globe*, fitted up with the aforesaid appurtenances.

I. *The latitude of a place being given, to rectify the globe for that place.*

Let it be required to rectify the globe for the latitude of Boston, $42^{\circ}, 23', \text{N.}$

Elevate the north pole, till the horizon cut the brazen meridian in $42^{\circ}, 23'$, and the globe is then rectified for the latitude of Boston. Bring Boston to the meridian, and you will find it in the zenith, or directly on the top of the globe. And so of any other place.

II. *To find the latitude and longitude of a place on the globe.*

Bring the given place under that half of the graduated brazen meridian, where the degrees begin at the equator, and under the graduated side of it; then the degree of the meridian over it shows the latitude; and the degree of the equator, under the meridian, shows the longitude.

Thus Boston will be found in $42^{\circ}, 23', \text{N. lat.}$ and about $71^{\circ} \text{W. lon.}$

III. *To find any place on the globe whose latitude and longitude are given.*

Bring the given longitude, found on the equator, to the meridian, and under the given latitude, is the place sought.

IV. *To find the distance and bearing of any two given places on the globe.*

Lay the graduated edge of the quadrant of altitude over both places, the beginning or 0 degree being on one of them, and the degrees between them show their distance; these degrees, multiplied by 60, give the distance in geographical, and, by $69\frac{1}{2}$, the distance in English, miles nearly. Observe, while the quadrant lies in this position, what rhumb of the nearest fly runs mostly parallel to the edge of the quadrant, and that rhumb shows nearly the bearing required.

V. *To find the sun's place in the ecliptic.*

Look the day of the month on the horizon, and opposite to it, you will find the sign and degree the sun is in that day. Thus, on the 25th of March, the sun's place is $4\frac{1}{2}$ degrees in *Aries*. Then look for that sign and degree in the *ecliptic line* marked on the globe, which is the sun's place; there fix on a small black patch, so is it prepared for the solution of the following problems.

Note. The earth's place is always in the sign and degree opposite to the sun; thus, when the sun is $4\frac{1}{2}$ degrees in *Aries*, the earth is $4\frac{1}{2}$ degrees in *Libra*; and so of any other.

VI. *To find the sun's declination, that is, its distance from the equinoctial line, either northward or southward.*

Bring its place to the meridian ; observe what degree of the meridian lies over it, and that is the declination. If the sun lie on the north side of the line, the declination is *north*, if on the south side the declination is *south*.

Thus on the 20th of April the sun has $11\frac{1}{2}$ degrees of north declination ; on the 26th of October, it has $12\frac{1}{2}$ of south declination.

Note. The greatest declination can never be more, either north or south, than the distance of a tropic from the equator.

VII. *To find where the sun is vertical on any day.*

Bring the sun's place to the meridian, observe its declination, or hold a pen or wire over it ; then turn the globe round, and all those countries which pass under the wire, will have the sun vertical, or nearly so, that day at noon. Thus on the 16th day of April, the inhabitants of the north part of *Terra Firma*, *Porto-Bello*, *Philippine Isles*, southern parts of *India*, *Abyssinia*, *Ethiopia*, and *Guinea*, have the sun over their heads that day at 12 o'clock.

Note. This appearance can only happen to those who live in the *torrid zone*.

VIII. *To find at what place the sun is vertical at any hour.*

Bring the place where you are, (say Boston) to the meridian ; set the index to the given hour ; then turn the globe till the index point to the upper 12, or *noon*, look under the degree of declination for that day, and you find the place where the sun is vertical.

Thus on the 1st day of May, at half past 8 o'clock, A. M. the sun is vertical at Cape Verd, the W. point of Africa.

Note. If it be morning, the globe must be turned from E. to W. ; if in the afternoon, it must be turned from W. to E.

IX. *To find at any hour of the day, what o'clock it is at any place.*

Bring the place where you are, to the brass meridian ; set the index to the hour, turn the globe till the place you want comes under the meridian, and the index will point to the time required.

Thus, when it is 10 o'clock in the morning, at Boston, it is 24 minutes past 12 at Olinda, in Brazil, and 8 at Mexico, in New-Spain ; the former being at 35° W. lon. and the latter at 100° W. longitude.

Note. By this problem you may also see, at one view, in what countries the inhabitants are *rising*, where *breakfasting*, *dining*, *drinking tea*, where going to *assemblies*, and where to *bed*.

- X. *To find at what hour the sun rises and sets any day in the year at a place, the latitude of which does not exceed 66 and a half degrees; and also on what point of the compass it rises and sets.*

Rectify the globe for the latitude of the place; bring the sun's place to the meridian, and set the index to 12; then turn the sun's place to the eastern edge of the horizon, and the index will point out the hour of rising; if you bring it to the western edge of the horizon, the index will show the hour of setting.

Thus on the 10th day of April, the sun rises at half an hour after 5 o'clock at Boston, and sets half an hour before 7.

Note. In summer the sun rises and sets a little to the northward of the east and west points; and in winter a little to the southward of them. If, therefore, when the sun's place is brought to the eastern and western edges of the horizon, you look on the horizon directly against the little patch, you will see the point of the compass on which the sun rises and sets that day.

- XI. *To find the length of the day and night, at any time of the year, and at any place in a latitude not exceeding 66 and a half degrees.*

Double the time of the sun's rising that day, and it gives the length of the night; double the time of its setting, and it gives the length of the day.

Thus on the 3d of May, the sun rises at Boston at 5 o'clock, and sets at 7; the day therefore is about 14 hours long, and the night 10.

- XII. *To find the length of the longest and shortest day at a given place.*

Rectify the globe for that place; if its latitude be north, bring the beginning of Cancer to the meridian; set the index to 12, then bring the same degree of Cancer to the east part of the horizon, and the index will show the time of the sun's rising, which doubled, gives the length of the shortest night.

If the same degree be brought to the western side, the index will show the time of the sun's setting, which doubled will give the length of the longest day.

If you bring the beginning of Capricorn to the meridian, and proceed in all respects as before, you will have the length of the longest night and shortest day.

Thus in the great Mogul's dominions, the longest day is 14 hours, and the shortest night 10 hours. The shortest day is 10 hours, and the longest night 14 hours.

At Petersburg, the capital of Russia, the longest day and night are about 19 and a half hours. The shortest day and night, 4 and a half hours.

Note. In all places near the equator, the sun rises and sets at 6 o'clock, through the year. Thence, to the polar circles, the days

increase, as the latitude increases; so that at those circles the longest day is 24 hours, and the longest night the same. From the *polar circles*, to the *poles*, the days continue to lengthen into weeks and months; so that at the pole, the sun shines for six months together in *summer*, and is below the horizon six months together in *winter*. Note also, when it is *summer* with the *northern* inhabitants, it is *winter* with the *southern*, and the reverse; and every part of the world partakes of an equal share of light and darkness.

XIII. *To find those inhabitants to whom the sun is at this moment rising, setting, in the meridian, and in the opposite.*

Find the sun's place in the ecliptic, and raise the pole as much above the horizon as the sun, that day, declines from the equator; then bring the place, where the sun is vertical at that hour, to the brass meridian; it will then be in the *zenith*. See what countries lie in the western edge of the horizon; for to them the sun is *rising*; to those in the eastern side it is *setting*; to those under the upper part of the meridian it is *noon*; and to those under the lower part of it, it is *midnight*.

Thus at Charlestown, (Mass.) 10th of April, at 4 o'clock, A. M. The sun is about rising on Brazil, S. America.

Setting on New-Guinea, and Japan Isles.

It is noon in Persia, Austria, and Nova-Zembla.

It is midnight in the Bay of Good Hope.

XIV. *To find the beginning and end of twilight.*

The *twilight* is that faint light, which opens the morning by little and little in the east, before the sun rises; and gradually vanishes in the west, after sunset. It arises from the sun's illuminating the upper part of the atmosphere, and begins when it approaches within about 18 degrees of the eastern horizon, and ends when it has descended about 18 degrees below the western; when darkness commences, and continues till another day dawn.

To find the *beginning of twilight*: rectify the globe; bring the sun's place in the ecliptic to the meridian, and set the index to 12 at noon. Turn the degree of the ecliptic, which is opposite to the sun's place, till it be elevated 18 degrees in the quadrant of altitude above the horizon on the west, so will the index point to the time when twilight begins. Bring the same degree of the ecliptic to 18 degrees of the quadrant on the east side, and the index will point to the time when twilight ends.

Thus, on the 10th of April, at Boston, twilight begins at 41 minutes after three in the morning, and ends 19 minutes after eight in the evening. In London they have a constant twilight while the sun is beneath the horizon, from the 20th of May to the 20th of July.

Under the north pole, the twilight ceases when the sun's declination is greater than 18 degrees south, which is from the 13th of November to the 29th of January; so that, notwithstanding the sun

is absent from that part of the world for half a year together, yet total darkness does not continue above 11 weeks; and beside, the moon is above the horizon, at the poles, for a whole fortnight of every month through the year.

XV. *To explain the phenomena of the Harvest Moon.*

Rectify the globe for any northern latitude, for instance, that of London; and as the moon's orbit makes but a small angle with the ecliptic, suppose the ecliptic to represent the moon's orbit. In September, when the sun is in the beginning of *libra*, if the moon be then at its full, it must be in the beginning of *aries*; and as the mean motion of the moon is about 13° in a day, put a patch on the first point of *aries*, and another 13° beyond it on the ecliptic; bring the former patch to the horizon, and then turn the globe till the other comes to it, and the motion of the index will show about 17° , which is the difference of the times of the moon's rising on two successive nights; because the earth must make so much more than a revolution in time, before it overtakes the moon the next night. This small difference arises from the small angle which the orbit of the moon makes with the horizon. If you continue patches at every 13° till you come to *libra*, you will find the difference of the times of rising will increase up to that point, and there the difference will be about 1h. 17; and this point of the ecliptic, when it rises, makes the greatest angle with the horizon. Hence, when the moon comes to the first point of *aries*, there will be the least difference of the times of her rising, and this happens at the time of the full moon, when the full moon happens about the 21st of September. That point of the ecliptic, which rises at the least angle with the horizon, will be found to set at the greatest, and therefore when there is the least difference in the times of rising, there will be found to be the greatest in the times of setting.

XVI. *To measure the distance from one place to another.*

Take their distance with a pair of dividers, and apply it to the equinoctial, will give the number of degrees between them, which, being multiplied by 60, (the number of geographical miles in one degree) gives the exact distance sought: or, extend the quadrant of altitude from one place to another, that will show the number of degrees in like manner, which may be reduced to miles as before.

Thus the distance from London to Madrid is 11 and a half degrees. From Paris to Constantinople 19 and a half degrees. From Bristol in England to Boston 45 degrees, which, multiplied by 69 and a half, (the number of English miles in a degree) gives 3127 and a half miles.

Note. No place can be further from another than 180 degrees, that being half the circumference of the globe, and consequently the greatest distance.

XVII. *To calculate the circumference of the earth, that is, to find the number of miles round it, on supposition of its being a globe.*

A line going round the earth, being supposed to be a circle, is divided, like every other circle, into 360 degrees, and each degree into 60 minutes. If the length of a degree, then, be multiplied by 360, the product is the circumference. Thus, if a degree be $69\frac{1}{2}$ English miles, the circumference is 25,020 miles; if a degree be 69.2 miles, the circumference is 24,912.

Note. Sixty geographical miles make a degree; the circumference, then, is 21,600 geographical miles.

XVIII. *To calculate the diameter of the earth.*

Multiply the circumference by 113, and divide the product by 355; the quotient will be the diameter. Thus, if the circumference be 24,912, the diameter is 7928.

Note. From these dimensions of the earth we may infer,

1st. That if a hole were made through it, and a mill stone should fall in this hole at the rate of one mile a minute, it would be more than $2\frac{1}{2}$ days descending to the centre.

2d. If a man, desirous of travelling round the earth, should go 20 miles a day, he would be nearly $3\frac{1}{2}$ years in completing the journey.

3d. If a bird should fly round the earth in two days, the flight would exceed the rate of 525 miles an hour.

XIX. *To find the superficial content of the earth.*

Multiply the circumference, 24,912 miles, by the diameter, 7928 miles, the superficial content is 197,502,336 square miles.

XX. *To find the solid content of the earth.*

Multiply the surface by *one sixth* of the diameter, and it will give its solidity, viz. 260,966,419,968 solid miles.

PROBLEMS SOLVED ON THE CELESTIAL GLOBE.

The equator, ecliptic, tropics, polar circles, horizon and brazen meridian are exactly alike on both globes. Both also are rectified in the same manner.

N. B. The sun's place for any day of the year stands directly against that day on the horizon of the celestial globe, as it does on that of the terrestrial.

The *latitude* and *longitude* of the celestial bodies are reckoned in a very different manner from the latitude and longitude of places on the earth; for all *terrestrial* latitudes are reckoned from the equator, and *longitudes* from the meridian, of some noted place, as of London by the British, and of Paris by the French. But the astronomers of all nations agree in reckoning the latitudes of the moon, planets,

comets and fixed stars, from the ecliptic ; and their longitudes, and that of the sun, from the equinoctial colure, and from that semicircle of it, which cuts the ecliptic at the beginning of aries ; and thence eastward, quite round to the same semicircle again. Consequently those stars, which lie between the equinoctial and the northern half of the ecliptic, have north declination, but south latitude ; those which lie between the equinoctial and the southern half of the ecliptic, have south declination, but north latitude ; and all those which lie between the tropics and poles, have their declinations and latitudes of the same denomination.

PROB. I. *To find the right ascension and declination of the sun or any fixed star.*

Bring the sun's place in the ecliptic to the brazen meridian ; then that degree in the equinoctial which is cut by the meridian is the sun's *right ascension* ; and that degree of the meridian which is over the sun's place is its *declination*. Bring any fixed star to the meridian, and its right ascension will be cut by the meridian in the equinoctial ; and the degree of the meridian that stands over it is its declination. So that right ascension and declination on the celestial globe are found in the same manner as longitude and latitude on the terrestrial.

II. *To find the latitude and longitude of a star.*

If the given star be on the north side of the ecliptic, place the 90th degree of the quadrant of altitude on the north pole of the ecliptic, where the twelve semicircles meet, which divide the ecliptic into the twelve signs ; but if the star be on the south side of the ecliptic, place the 90th degree of the quadrant on the south pole of the ecliptic : keeping the 90th degree of the quadrant on the proper pole, turn the quadrant about, until its graduated edge cut the star ; then the number of degrees on the quadrant, between the ecliptic and the star, is its latitude ; and the degrees of the ecliptic cut by the quadrant is the star's longitude, reckoned according to the sign in which the quadrant then is.

III. *To represent the face of the starry firmament, as seen from any given place of the earth, at any hour of the night.*

Rectify the celestial globe for the given latitude, the zenith, and sun's place, in every respect, as taught by the problem for the terrestrial ; and turn it about until the index point to the given hour ; then the upper hemisphere of the globe will represent the visible half of the heavens for that time : all the stars upon the globe being then in such situations, as exactly correspond to those in the heavens. And if the globe be placed duly north and south, by means of a compass, every star on the globe will point toward the like star in the heavens : by which means the constellations and remarkable stars may be easily known. All those stars, which are in the eastern side of the horizon, are then rising in the eastern part of the heavens ; all

In the western are setting in the western part ; and all those under the upper part of the brazen meridian, between the south point of the horizon and the north pole, are at their greatest altitude, if the latitude of the place be north ; but if the latitude be south, those stars which lie under the upper part of the meridian, between the north point of the horizon and the south pole, are at their greatest altitude.

IV. *When the latitude of the place and day of the month being given : to find the time when any known star will rise, be on the meridian, or set.*

Having rectified the globe, turn it about until the given star come to the eastern side of the horizon, and the index will show the time of the star's rising ; then turn the globe westward, and when the star comes to the brazen meridian, the index will show the time of the star's coming to the meridian of the place ; lastly, turn on until the star come to the western side of the horizon, and the index will show the time of the star's setting.

N. B. In northern latitudes, those stars, which are less distant from the north pole, than the quantity of its elevation above the north point of the horizon, never set ; and those, which are less distant from the south pole than the number of degrees by which it is depressed below the horizon, never rise : and *vice versa* in southern latitudes.

V. *To find at what time of the year a given star will be on the meridian at a given hour of the night.*

Bring the given star to the brass meridian, and set the index to the given hour ; then turn the globe until the index point to XII. at noon, and the meridian will then cut the sun's place, answering to the day of the year sought : which day may be easily found against the like place of the sun among the signs on the wooden horizon.

METHODS OF FINDING THE LATITUDES AND LONGITUDES OF PLACES FROM CELESTIAL OBSERVATIONS.

What is meant by latitude and longitude has already been sufficiently explained ; it remains that we show the methods of finding both by celestial observations.

Of finding the latitude. There are two methods of finding the latitude of any place. The first is by observing the height of the pole above the horizon ; the second, by discovering the distance of the zenith of the place from the equator. The elevation of the pole is always equal to the latitude ; and is thus found. As there is no star, towards which either pole points directly, fix upon some star near the pole. Take its greatest and least height when it is on the meridian. The half of these two sums (proper allowance being made for the refraction of the atmosphere) will be the latitude. The other method is this. The distance of the zenith of any place from

the celestial equator, measured in degrees on the meridian, is equal to the latitude. Fix upon some star lying in or near the equator. Observe its zenith distance when it is in the meridian. If it is directly in the equator, this will be the latitude. If it is nearer than the equator, add its declination to its zenith distance; if farther, deduct its declination from its zenith distance; the sum or difference will be the latitude.

Of finding the longitude. There are three approved methods of discovering the longitude; 1st, By the moon's distance from the sun or a fixed star; 2d, By a time-keeper; 3d, By an eclipse of the moon, or of one of Jupiter's satellites. The last only will be described in this place. By the earth's rotation on its axis in 24 hours, the sun appears to describe, in the same space of time, an apparent circle of 360 degrees in the heavens. The apparent motion of the sun is therefore 15 degrees in an hour. If two places, therefore, differ 15 degrees in longitude, the sun will pass the meridian of the eastern place 1 hour sooner than the western. The commencement of a lunar eclipse is seen, at the same moment of time, from all places where the eclipse is visible. If, then, an eclipse of the moon is seen to commence, at one place, at 12 o'clock at night, and, at another place, at 1 o'clock; the places differ 15 degrees in longitude, and the last lies eastward of the first. The nautical almanac, published in London, and calculated for the meridian of Greenwich, contains the exact time when the eclipses of the moon commence at that place. When the time of the commencement of an eclipse at any place has been observed, a comparison of it with the time in the almanac will determine the difference of time between the place and Greenwich. If the hour is later than the hour in the almanac, the place is situated to the east of Greenwich; if earlier, to the west. As 1 hour in time is 15 degrees in motion, so is one minute, 15 minutes, and one second, 15 seconds. This would be the easiest and most accurate method of ascertaining the longitude, if we could determine the precise moment of time when a lunar eclipse commences. But this cannot, in general, be determined nearer than 1 minute, and often not nearer than 2 or 3 minutes. A variance of 1 minute would make the difference of 15 minutes or miles in longitude; of 2 minutes, 30 minutes; and of 3 minutes, 45 minutes.

This objection does not lie against the method of ascertaining the longitude by the eclipses of Jupiter's satellites. The telescope enables us to determine the precise moment when they are immersed in the shadow of their primary. The hour at the place, therefore, being ascertained, and compared with the hour in the almanac, we are enabled to determine, as before, the exact difference of longitude.

On the equator a degree of longitude is equal to 60 geographical miles; and of course a minute on the equator is equal to 1 geographical mile. But as all the meridians cut the equator at right angles, and approach nearer and nearer till they cross each other at the poles, it is obvious that the degrees of longitude decrease as you go from the equator to the pole. They do not, however, decrease uniformly; for a degree of longitude, in latitude 60 degrees, is 30 miles, or half as long as a degree on the equator.

INTRODUCTION.

49

The following Table contains the length of a degree of longitude in English miles for every degree of latitude.

Latitude.	Degrees of Longitude.	Latitude.	Degrees of Longitude.	Latitude.	Degrees of Longitude.	Latitude.	Degrees of Longitude.	Latitude.	Degrees of Longitude.
0	69.2000	18	65.8134	36	55.9842	54	40.6751	72	21.3842
1	69.1896	19	65.4300	37	55.2659	55	39.6917	73	20.2320
2	69.1578	20	65.0265	38	54.5303	56	38.6959	74	19.0743
3	69.1052	21	64.6037	39	53.7788	57	37.6891	75	17.9103
4	69.0312	22	64.1609	40	53.0100	58	36.6705	76	16.7409
5	68.9363	23	63.6986	41	52.2259	59	35.6408	77	15.5665
6	68.8208	24	63.2177	42	51.4253	60	34.6000	78	14.3874
7	68.6845	25	62.7167	43	50.6094	61	33.5489	79	13.2041
8	68.5267	26	62.1963	44	49.7783	62	32.4873	80	12.0166
9	68.3481	27	61.6579	45	48.9313	63	31.4161	81	10.8250
10	68.1489	28	61.1001	46	48.0705	64	30.3352	82	9.6306
11	67.9288	29	60.5237	47	47.1944	65	29.2453	83	8.4334
12	67.6880	30	59.9293	48	46.3038	66	28.1464	84	7.2335
13	67.4264	31	59.3162	49	45.3994	67	27.0385	85	6.0315
14	67.1448	32	58.6851	50	44.4811	68	25.9230	86	4.8274
15	66.8424	33	58.0360	51	43.5489	69	24.7992	87	3.6219
16	66.5191	34	57.3696	52	42.6037	70	23.6678	88	2.4151
17	66.1760	35	56.6852	53	41.6453	71	22.5294	89	1.2075

A Table, showing the number of geographical miles contained in a degree of longitude in each parallel of latitude from the equator.

Degrees of Latitude.	Miles.	100th parts of a mile.	Degrees of Latitude.	Miles.	100th parts of a mile.	Degrees of Latitude.	Miles.	100th parts of a mile.	Degrees of Latitude.	Miles.	100th parts of a mile.
0	60	0	19	56	73	37	47	92	55	34	41
1	59	99	20	56	39	38	47	28	56	33	55
2	59	96	21	56	01	39	46	62	57	32	68
3	59	91	22	55	63	40	45	96	58	31	79
4	59	85	23	55	23	41	45	28	59	30	90
5	59	77	24	54	81	42	44	58	60	30	00
6	59	67	25	54	38	43	43	88	61	29	09
7	59	55	26	53	96	44	43	16	62	28	17
8	59	41	27	53	46	45	42	42	63	27	24
9	59	26	28	52	97	46	41	68	64	26	30
10	59	09	29	52	47	47	40	92	65	25	35
11	58	89	30	51	96	48	40	14	66	24	40
12	58	68	31	51	43	49	39	36	67	23	44
13	58	46	32	50	88	50	38	57	68	22	47
14	58	22	33	50	32	51	37	76	69	21	50
15	57	95	34	49	74	52	36	94	70	20	52
16	57	67	35	49	15	53	36	11	71	19	53
17	57	38	36	48	54	54	35	27	72	18	54
18	57	06							73	17	54

MAPS, AND THEIR USE.

A map is the representation of some part of the earth's surface, delineated on a plane according to the laws of projection; for as the earth is of a globular form, no part of its spherical surface can be accurately exhibited on a plane.

Maps are either general or particular.

General maps are such as give us a view of an entire hemisphere, or half of the globe, and are projected on the plane of some great circle, which terminates the projected hemisphere, and divides it from the other half of the globe, as the meridian, equator, or the horizon of some place; and, from this circle, the projection is said to be *meridional*, *equatorial*, or *horizontal*.

Particular maps are such as exhibit a part less than the hemisphere; as maps of Europe, Asia, America, or less districts.

There are two methods of projecting the circles in general maps, viz. *stereographic* and *orthographic*. Almost all maps are of the former kind, and are projected on a meridian. In order to form an adequate idea of the construction of maps, we may imagine a globe, of thin glass, on which the great and small circles are delineated as on the terrestrial globe. Suppose both the poles of this glass globe to lie in the horizon, that meridian which is called the equinoctial colure, to be coincident with the horizon, and the hemisphere below the horizon to be that which is to be projected. In that case the plane of the equinoctial colure will be the plane of projection. If the eye is now supposed to be placed in that point of the upper hemisphere where the solstitial colure cuts the equator, and straight lines are supposed to pass from every point in the surface of the lower hemisphere through the plane of projection, so that they all meet in the eye, it is obvious that every part of the surface of the lower hemisphere would be marked or projected on the plane of projection. This is an instance of *stereographic projection*, on the plane of a meridian. The map of the whole earth is commonly contained in two circles. The lower hemisphere, projected in this manner on the plane of the meridian or colure, would appear to the eye, in the place supposed, exactly like the half of such a map. A new projection, obtained by reversing the hemispheres, would give the other half of the map. Hence it appears that, in the *stereographic projection*, the eye is placed in the pole of that great circle, whose plane is the plane of projection; and that the hemisphere projected is the hemisphere opposite the eye. If the eye be supposed to be placed at an infinite distance, it is called the *orthographic projection*.

In the *stereographic projection*, the parts about the middle are contracted, being much less than those nearer the circumference.

All the maps in this treatise, and indeed those in almost all others, are laid down according to the laws of *stereographic projection*.

Maps differ from the globe in the same manner as a picture does from a statue. The globe truly represents the earth; but a map not more than a plane surface represents one that is spherical. Although the earth can never be exhibited exactly by one map, yet, by

means of several, each containing about 10 or 20 degrees of latitude, the representation will not fall much short of the globe in exactness; because such maps, if joined together, would form a convex surface nearly as round as the globe itself.

Cardinal Points. The *north* is considered as the upper part of the map; the *south* is at the bottom, opposite to the north; the *east* is on the right hand, the face being turned to the north; and the *west* on the left hand, opposite to the east. From the top to the bottom are drawn meridians, or *lines of longitude*; and from side to side, *parallels of latitude*. The outmost of the meridians and parallels are marked with degrees of latitude or longitude, by means of which, and the *scale of miles*, which is commonly placed in a corner of the map, the situations, distances, &c. of places may be found, as on the artificial globe. Thus, to find the distance of two places, suppose Philadelphia and Boston, by the map, we have only to measure the space between them with the compasses, or a piece of thread, and to apply this distance to the scale of miles, which shows that Boston is 286 miles distant in a straight line from Philadelphia. If the places lie directly north or south, east or west, from one another, we have only to observe the degrees on the meridians and parallels, and by reducing these to miles, we obtain the distance without measuring. Rivers are described in maps by black lines, and are wider toward the mouth, than toward the head or spring. Mountains are sketched on maps as on a picture. Forests and woods are represented by a kind of shrub; bogs and morasses, by shades; sands and shallows are described by small dots; and roads usually by double lines. Near harbors, the depth of the water is expressed by figures representing fathoms.

When any part of the heavens or earth is said to be on the right or left, we are to understand the expression differently, according to the profession of the person, who makes use of it; because, according to that, his face is supposed to be turned toward a certain quarter. A geographer is supposed to stand with his face to the north, because the northern part of the world is best known. An astronomer looks toward the south, to observe the celestial bodies as they come to the meridian. The ancient augurs, in observing the flight of birds, looked toward the east; while the poets look westward, toward the *Fortunate Isles*. In books of geography, therefore, by the right hand we must understand the east; in those of astronomy, the west; in such as relate to augury, the south; and in the writings of poets, the north.

GEOGRAPHICAL THEOREMS, OR PROPOSITIONS.

These propositions, which are deducible from the nature of the foregoing work, the learner will find to be so many *real truths*, if he properly applies and contemplates them upon the globe.

1. Places lying under the equator have no latitude.
2. Under the *poles* of the world the latitude is just 90 degrees.
3. Going from the *equator* to the *poles*, the latitude increases.

4. The *latitude* of any place is equal to the height of the pole in degrees above the horizon.

5. Places lying under that meridian, which is accounted the first, have *no longitude*.

6. Those places have the greatest longitude which lie under the meridian, opposite to that where longitude begins.

7. The longitude of any place cannot be greater than 180 degrees east or west, nor its latitude but 90.

8. No two places can be farther distant from each other than 180 degrees, which is half the circumference of a great circle of the globe.

9. All the inhabitants of the earth enjoy the *sun's light* an equal length of time, and are equally long without it.

10. Under the *equinoctial*, the days and nights are always equal to 12 hours; but not exactly so in any other place.

11. In all places between the equator and the poles, the days and nights are never equal, except at the time of the equinoxes.

12. In places exactly under the *polar circles*, the sun appears, when at the *summer tropic*, one whole day without setting; and disappears one whole day when in the *winter tropic*: at other times it daily rises and sets as elsewhere.

13. At all places in the *frigid zones*, the sun appears every year without setting for a certain number of days; and disappears for the same space of time. And the nearer to or further from the pole those places are, the longer or shorter is its appearance and absence.

14. To all places under the same semicircle of the meridian, whether on the north or south side of the equator, it is *noon* or *midnight*, or any other hour of the day or night, at the same time precisely.

15. Places lying eastward of any other place have their *morning*, *noon*, and *evening* hours earlier than at that place, by one hour for every 15 degrees it lies eastward of it.

16. Places lying westward of any other place have their *morning*, *noon*, and *evening* hours later than at that place, by one hour for every 15 degrees it lies westward of it.

17. A person, in going *eastward* quite round the globe, will gain one day in his reckoning; if *westward*, he will lose one day.

18. Two persons, setting out at the same time from a place, to make the circuit of the globe, one going *eastward*, the other *westward*, will, on their return, differ in their account of time by two entire days.

19. To all places within the torrid zone, the sun is *vertical*, i. e. passes over the heads of the inhabitants, *twice* a year. To those under the *tropics*, once; but it is never vertical to those in the *temperate* or *frigid zones*.

20. People who live to the north of the torrid zone see the sun due *south* at noon, and their shadows project north; and those who live to the south of the torrid zone see the sun due *north* at noon, and their shadows project south.

21. The nearer the sun is to the zenith of any person, the shorter is the shadow at noon.

22. On the days of the *equinoxes* only, that is about the 20th of March and 23d of September, the sun rises exactly in the *east* point of the horizon, and sets in the *west* point, to every place on the earth.

23. To places in *north latitude*, the sun rises toward the *north of east*, and sets toward the *north of west*, from the vernal to the *autumnal* equinox; and rises toward the *south of east*, and sets toward the *south of west*, from the time of the *autumnal equinox* to that of the *vernal*.

Lastly. In all places of the torrid zone, the morning and evening twilight is least; in the two frigid zones it is greatest; and in the temperate zones the twilight is a medium between them.

ON THE TEMPERATURE OF DIFFERENT PARTS OF THE EARTH.

The presence of the sun is one of the principal sources of heat, and its absence the cause of cold; and were these the only sources of heat and cold, in the same parallel of latitude, there would be the same degree of heat or cold at the same season; but this is found to be contrary to fact; the temperature of the eastern coast of N. America is much colder than the western coast of Europe, under the same latitude. Very hot days are frequently felt in the coldest climates; and very cold weather, even perpetual snow, is found in countries under the equator. We must therefore seek for other causes of heat and cold, and these must evidently be partly local.

One great source of heat is from the earth; whether this arises from any central fire, or from a mass of heat diffused through the earth, it is not perhaps easy to say; the latter cause is perhaps the most probable; and in this case, the heat which is thus gradually lost is renewed again by the sun. This heat, imparted from the earth to the atmosphere, tends greatly to moderate the severity of the winter's cold. It is found by observation, that the same degree of heat resides in all subterraneous places at the same depth, varying a little at different depths, but is never less than 36 of FAHRENHEIT'S thermometer. There is however an exception to this in mines, where there is probably some chemical operations going forward. Mr. KIRWAN, in his *Estimate of the Temperature of different Latitudes*, and to whom we are principally indebted for the ideas in this article, observes, that at 80 or 90 feet (if this depth have any communication with the open air, and perhaps, at a much less depth, if there be no such communication) the temperature of the earth varies very little, and generally approaches to the *mean* annual heat. Thus the temperature of springs is nearly the same as the mean annual temperature, and varies very little in different seasons. The temperature of the cave, at the observatory at Paris, is about 53½ degrees, and varies about half a degree in very cold years; its depth is about 90 feet. The internal heat of the earth in our climate is always above 40, and therefore the snow generally begins to melt first at the bottom.

The next source of heat is the condensation of vapor. It is well known that vapor contains a great quantity of heat, which produces no other effect, but that of making it assume an aerial, expanded state, until the vapor is condensed into a liquid; during which con-

densation a certain quantity of heat escapes, and warms the surrounding atmosphere. This condensation is frequently formed by the attraction of an electrical cloud, and hence arises the great sultriness which we frequently experience before rain, and particularly before a thunder storm.

As the earth is one of the great sources of heat, warming the surrounding air, distance from the earth must be a source of cold; and thus we find, that as you ascend in the atmosphere, the cold increases. In the vicinity of Paris, the temperature of the earth being 47° , at the estimated height of 11084 feet it was found to be 21° , or 11° below congelation, by M. CHARLES, who ascended in a balloon. And Lord MULGRAVE, at the bottom of Hacklyt Hill, lat. 80, found the temperature of the air 50° ; but on the top, at the height of 1503 feet, only 42° . Hence we find, that the highest mountains, even under the equator, have their tops continually covered with snow. Mr. BOUGUER found the cold of Pinchina, one of the Cordelieres, immediately under the line, to extend from 7° to 9° below the freezing point every morning before sunrise; and hence at a certain height, which varies in almost every latitude, it constantly freezes at night all the year round, though in the warm climates it thaws to some degree the next day. This height he calls the *lower term of congelation*: between the tropics he places it at the height of 15577 feet *English measure*.

The next great source of cold is *evaporation*. The same cause which makes the condensation of vapor a source of heat, makes evaporation the source of cold; as it absorbs the fire in the latter instance, which it gives out in the former: the heat thus absorbed is called *latent heat*, as it produces, in that state, no sensation of warmth. At a certain height above the lower term of congelation it never freezes, not because the cold decreases, but because the vapors do not ascend so high; this height Mr. BOUGUER calls the *upper term of congelation*, and under the equator he fixes it at the height of 28,000 feet. Mr. KIRWAN has given us the following *mean height of the upper and lower terms of congelation*, for the latitude of every 5 degrees, in *feet*.

Lat.	Alt. <i>lower</i> Term.	Alt. <i>upper</i> Term.	Lat.	Alt. <i>lower</i> Term.	Alt. <i>upper</i> Term.
0°	15577	28000	45°	7658	13730
5	15457	27784	50	6260	11253
10	15067	27084	55	4912	8830
15	14498	26061	60	3684	6546
20	13719	24661	65	2516	4676
25	13030	23423	70	1557	2809
30	11592	20838	75	748	1346
35	10664	19169	80	120	206
40	9016	16207			

Sometimes the temperature of the upper air is higher than that of the lower air, particularly when a large mass of vapors is condensed by electrical agency; for no part of the heat given out by that cause

being lost by communication with air much colder, that which surrounds the vapors so condensed, must be heated to a considerable degree. The clouds, by absorbing the sun's rays, are more heated than the clear air would be. These, and other circumstances, render the true height of the terms of congelation at any time, subject to considerable uncertainty.

The clearing away of woods lessens the vapors, and consequently diminishes the quantity of rain, and increases the temperature. Several parishes in Jamaica, which used to produce fine crops of sugar-canes, are now dry for nine months in a year, and are turned into cattle-pens, by the clearing away of the woods. Hence, water is most plentiful in those countries where woods abound, and the best springs are there found. In America, since the woods in the neighborhood of their towns have been cut down, many streams have become dry; and others have been reduced so low, as to cause great interruptions to mills.

Of evaporation, the following facts may be observed. 1. That in our climates, evaporation is about four times as great from the 21st of March to the 21st of September, as from the 21st of September to the 21st of March.

2. The degree of cold produced by evaporation, is always much greater when the air is warmer than the evaporating surface, than that which is produced when the surface is warmer than the air. Hence, warm winds, as the *Sirocco*, and *Harmatan*, are more drying than cold winds.

3. Evaporation is more copious when the air is less loaded with vapors, and is therefore greatly promoted by cold winds flowing into warmer countries.

4. Evaporation is greatly increased by a current of air or wind flowing over the evaporating surface, because unsaturated air is constantly brought into contact with it. Hence, calm days are hottest, as has been commonly remarked.

5. Tracts of land covered with trees or vegetables emit more vapor than the same space covered with water. Mr. WILLIAMS (*Philadelphia Transactions*) found this quantity to amount to $\frac{1}{4}$ more. Hence the air about a wood or forest is made colder by evaporation from trees and shrubs, while the plants themselves are kept in a more moderate heat, and secured from the burning heat of the sun by the vapors which perspire from the leaves. Thus, we find the shade of vegetables more effectual to cool us, as well as more agreeable, than the shade from rocks and buildings.

The heat and cold of different countries are transmitted from one to the other, by the medium of winds.

From what has been observed it is manifest, that some situations are better fitted to receive or communicate heat, than others; thus, high and mountainous situations, being nearer to the source of cold than lower situations; and countries covered with woods, as they prevent the access of the sun's rays to the earth, or to the snow which they may conceal, and present more numerous evaporating surfaces, must be colder than open countries, though situated in the same latitude. And since all tracts of land present infinite varieties of situation, uniform results cannot here be expected. Mr. KIRWAN ob-

serves therefore, that it is on water only that we must seek for a standard situation, with which to compare the temperature of other situations. Now the globe contains, properly speaking, but two great tracts of water, the Atlantic and the Pacific oceans; which may each be divided into north and south, as they lie on the northern or southern side of the equator. In this tract of water, he chose that situation for a standard which recommends itself more by its simplicity, and freedom from any but the most permanent causes of alteration of temperature; viz. that part of the Atlantic which lies between 80° north and 45° south latitude, and extending southward as far as the gulf stream, and to within a few leagues of the coast of America; and that part of the Pacific ocean which lies between 45° north and 40° south latitude, and from 20° to 275° east longitude. Within this space, the *mean* annual temperature will be found as expressed by the following table. The temperatures beyond 80° of latitude are added, though not strictly within the standard.

A Table of the *mean* Annual Temperature of the standard situation, in every degree of Latitude.

Lat.	Temp.	Lat.	Temp.	Lat.	Temp.
0°	84	33°	68.3	62°	42.7
5	83.6	34	67.4	63	41.9
6	83.4	35	66.6	64	41.2
7	83.2	36	65.7	65	40.4
8	82.9	37	64.8	66	39.7
9	82.7	38	63.9	67	39.1
10	82.3	39	63	68	38.4
11	82	40	62	69	37.8
12	81.7	41	61.2	70	37.2
13	81.3	42	60.3	71	36.6
14	80.8	43	59.4	72	36
15	80.4	44	58.4	73	35.5
16	79.9	45	57.5	74	35
17	79.4	46	56.4	75	34.5
18	78.9	47	55.6	76	34.1
19	78.3	48	54.7	77	33.7
20	77.8	49	53.8	78	33.2
21	77.2	50	52.9	79	32.9
22	76.5	51	52.4	80	32.6
23	75.9	52	51.1	81	32.2
24	75.4	53	50.2	82	32
25	74.5	54	49.2	83	31.7
26	73.8	55	48.4	84	31.5
27	72.8	56	47.5	85	31.4
28	72.3	57	46.7	86	31.2
29	71.5	58	45.8	87	31.14
30	70.7	59	45.1	88	31.10
31	69.9	60	44.3	89	31.04
32	69.1	61	43.5	90	31

The rule by which this table has been computed, was given by the famous astronomer TOBIAS MAYER of Gottingen, and is as follows ; it was constructed from knowing the mean annual temperatures of two latitudes. Let s be the sine of the latitude ; then the mean annual temperature will be $84 - 53 \times s^2$; that is, *from 84 subtract 53 multiplied into the square of the sine of the latitude, and the remainder is the mean annual temperature.*

The temperatures of different years differ very little near the equator, but they differ more and more as you approach the poles.

It scarce ever freezes in latitudes under 35° , except in high situations ; and it scarce ever hails in latitudes higher than 60° .

In latitudes between 35° and 60° , in places adjacent to the sea, it generally thaws when the sun's altitude is 40° or upwards ; and seldom begins to freeze, until the sun's meridian altitude is below 40° .

The greatest cold in all latitudes in our hemisphere is generally about half an hour before sunrise. The greatest heat in all latitudes between 60° and 45° is about half past two o'clock in the afternoon ; between latitudes 45° and 35° , about 2 o'clock ; between latitudes 35° and 25° , about half past 1 o'clock ; and between latitude 25° and the equator, about 1 o'clock. On sea, the difference between the heat of day and night, is not so great as on land, particularly in low latitudes.

In all latitudes, January is the coldest month. July is the warmest month in all latitudes above 48° : but in lower latitudes, August is the warmest. The temperature of April approaches more nearly to the mean annual temperature, than any other month.

In the highest latitudes, we often meet with an heat of 75° or 80° ; and in latitudes 59° and 60° the heat of July is frequently greater than in latitude 51° .

All countries lying to the windward of high mountains, or extensive forests, are warmer than those to the leeward in the same latitude.

The vicinity to the sea is another circumstance which affects the temperature of a climate ; as it moderates the heat from the land, and brings the atmosphere down to a standard best fitted to the human constitution. In our hemisphere, countries which lie to the south of any sea, are warmer than those that have the sea to the south of them, because the winds that should cool them in winter are mitigated by passing over the sea ; whereas those which are northward of the sea, are cooler in summer by the breezes from it. A northern or southern bearing of the sea renders a country warmer than an eastern or western bearing.

Islands participate more of temperature arising from the sea, and are therefore warmer than continents.

The soils of large tracts of land have their share in influencing the temperature of the country : Thus, stones and sand heat and cool more readily, and to a greater degree, than mould ; hence, the violent heats in the sandy deserts of Arabia and Africa ; and the intense cold of Terra del Fuego, and other stony countries in cold latitudes.

Vegetables considerably affect the temperature of a climate. Wooded countries are much colder than those which are open and cultivated.

Every habitable latitude enjoys a heat of 60° at least, for 2 months, and this is necessary for the growth and maturity of corn. The quickness of vegetation in the higher latitudes proceeds from the time the sun is above the horizon. Rain is but little wanted, as the earth is sufficiently moistened by the liquefaction of the snow that covers it during the winter. In this we cannot sufficiently admire the wise disposition of Providence.

It is owing to the same provident hand that the globe of the earth is intersected with seas and mountains, in a manner, that seems, on its first appearance, altogether irregular and fortuitous; presenting to the eye of ignorance, the view of an immense ruin: but when the effects of these seeming irregularities on the earth are carefully inspected, they are found most beneficial, and even necessary to the welfare of its inhabitants; for, to say nothing of the advantages of trade and commerce, which could not exist without seas, we have seen that it is by their vicinity, that the cold of higher latitudes is moderated, and the heat of the lower. It is by the want of seas, that the interior parts of Asia, as Siberia and Great Tartary, as well as those of Africa, are rendered almost uninhabitable; a circumstance which furnishes a strong prejudice against the opinion of those, who think those countries were the original habitations of man. In the same manner, mountains are necessary; not only as the reservoirs of rivers, but as a defence against the violence of heat in the warm latitudes; without the Alps, Pyrenees, Apennines, the mountains of Dauphine, Auvergne, &c. Italy, Spain and France would be deprived of the mild temperature which they now enjoy. Without the Balgathe Hills, or Indian Apennine, and the stupendous mountains of Napaul, the highest on the globe, India would have been a desert. The same may be said of the Andes, and a great part of S. America. Hence, Jamaica, St. Domingo, Sumatra, and most other islands between the tropics, are furnished with mountains, from which the breezes proceed which refresh them.

The annual heat of London and Paris is nearly the same; but from the beginning of April to the end of October, the heat is greater at Paris, than at London. Hence, grapes arrive at greater perfection in the neighborhood of Paris, than about London.

The following table contains a comparison of the temperature of London with several other places. The first column contains the place; the second, the annual temperature; the third, the temperature of January, that being the coldest month; and the fourth, the temperature of July; that at London, as the standard, being estimated at 1000. The degree of *cold* is estimated in the third column, and the degree of *heat* in the second and fourth.

Places.	An. Temp.	Temp. Jan.	Temp. July.
London - -	1000	1000	1000
Paris - -	1028	1040	1037
Edinburgh - -	923	1040	914
Berlin - -	942		
Stockholm - -	811	1583	967
Petersburgh - -	746	3590	1008
Vienna - -	987	1305	1037
Pekin - -	1067	1730	1283
Bordeaux - -	1090	925	1139
Montpelier - -	1170	850	1196
Madeira - -	1319	559	1128
Spanish Town, in Jamaica	1557		
Madras - -	1565	491	1349

At London, by a mean of the observations made at the Royal Society from 1772 to 1780, it appears that the mean annual temperature is $51^{\circ}9$, or in whole numbers, 52° ; and the monthly temperature is as follows:

January - -	$35^{\circ}9$	July - -	$66^{\circ}3$
February - -	$42^{\circ}3$	August - -	$65^{\circ}85$
March - -	$46^{\circ}4$	September - -	$59^{\circ}63$
April - -	$49^{\circ}9$	October - -	$52^{\circ}81$
May - -	$56^{\circ}61$	November - -	$44^{\circ}44$
June - -	$63^{\circ}22$	December - -	$41^{\circ}04$

The greatest usual cold is 20° , and happens in January; the greatest usual heat is 81° , and happens generally in July.

The limits of the annual variation are $2^{\circ}5$, that is, 1° above, and $1^{\circ}5$ below the mean.

The greatest variations of the mean temperature of the same month in different years, are as follows:

January - -	6°	July - -	2°
February - -	5	August - -	2
March - -	4	September - -	3.5
April - -	3	October - -	4
May - -	2.5	November - -	4
June - -	2	December - -	3

Hence it appears, that the temperatures of the summers differ much less than those of the winter.

The most usual variations of temperature within the space of 24 hours in every month, are,

January - -	6°	July - -	10°
February - -	8	August - -	15
March - -	20	September - -	18
April - -	18	October - -	14
May - -	14	November - -	9
June - -	12	December - -	6

At Petersburg, lat. 59° , $56'$, lon. 30° , $24'$, E. the mean annual temperature is $38^{\circ}.8$. from the mean of 6 years. The greatest cold observed was that at which mercury freezes, that is, 39° below 0° ; but the greatest mean degree of cold for several years was 25° below 0° . The greatest summer heat, on a mean, is 79° , yet once it amounted to 94° . It seldom hails at this place.

In lat. 79° , $50'$, Lord Mulgrave observed the greatest heat for two days to be 58° , and the least 46° . Mr. Martin observes, that the weather in the polar regions is very unsteady; one hour it blows a violent storm, and the next there is a dead calm; neither does it blow long in any one point, but sometimes from every point within 24 hours. After a calm, the north wind springs up first; the sky is seldom perfectly clear, and storms are much more frequent than in lower latitudes.

In Europe, unusual cold in summer may arise, either from a long continuance of easterly or northerly winds, or from frequent and heavy rains, which are followed by great evaporations, or from a long continuance of cloudy weather in June and July, which prevents the earth from receiving its proper degree of heat.

The causes of unusual cold in winter may be these. 1. *Unusual cold in the preceding summer.* For the heat in the winter being in a great measure derived from the earth, if this be deprived of its usual heat, the want of it must be perceived in winter. The cold of January, 1709, was the severest long known in Europe; and Mr. Derham remarked, that the preceding June was so cold, that his thermometer was near the freezing point on the 12th of that month, and the quantity of rain was much greater than usual. Mr. Wolf made the same observation in Germany. 2. *Heavy rains followed by easterly or northerly winds.* This circumstance produces great cold at any time, on account of the great evaporation, which then takes place by these dry winds. It took place in October, 1708, as Mr. Wolf observed; and an intense cold immediately followed. 3. *Westerly or southerly currents, in the upper regions of the atmosphere, whilst easterly or northerly winds prevail in the lower.* For the warm currents are deprived of their moisture, by the cold of the superior regions; and this, descending in the form of snow, cools the inferior strata below their usual temperature; this circumstance also took place in 1709, when the cold was greatest. 4. *The arrival of Siberian or American winds:* Siberia is 2800 miles east of London; but according to Mr. Smeaton's computation, a common high wind moves at the rate of 35 miles in an hour, and therefore may pass to London in 3 days from Siberia, and preserve much of its original degree of cold. The winds from America may also arrive in London in a few days; but their rigor will be abated by passing over the sea; but if the sea have been previously cooled by northerly winds, the westerly winds may prove very cold. Mr. Derham, on comparing his journals with those of Mr. Robie in New-England, found, that after a few days, the American winds passed into England. The wind in 1784 was equally severe in America, as in Europe. 5. *The fall of a superior stratum of the atmosphere.* This will happen when a cold wind in the upper regions of the atmosphere

passes over a country, the lower strata of whose atmosphere are lighter ; and hente a low state of the barometer generally precedes such extraordinary cold. It is probably for this reason that Holland oftener experiences a greater degree of cold than other countries under higher latitudes ; for being a moist country, its atmosphere abounds more in vapors, which renders it specifically lighter ; thus, during the great cold of January, 1783, the barometer was lower than it had been known to be for 50 years before, during that month : and Muschenbrock remarked, that in winter, when the mercury in the barometer descends, the cold increases.

Land is capable of receiving much more either heat or cold than water. In winter, when the surface of water is much cooled by contact with the colder air, the deeper and warmer water at the bottom, being specifically lighter, rises and tempers the top ; and as the colder water constantly descends during the winter, in the following summer the surface is generally warmer than at greater depths ; whereas in winter it is colder ; hence it has been remarked, that the sea is always colder in summer and warmer in winter, after a storm, the water at great depths being mixed with that at the surface. Of the following observations, the three first were made by Lord Mulgrave, the three next by Wales and Bayley, and the other by Mr. Bladh. The third column expresses the heat of the air over the surface of the sea ; the fourth expresses the depth of the sea in *fathoms* ; the fifth expresses the heat of the sea at that depth ; and the sixth expresses the heat of the sea at the surface.

Latitude.	Time.	Heat of Air.	Depth.	Heat of Sea.	Heat of Surf.
67° N.	June 20	48.5	4680	26	
78 N.	30	40.5	708	31	
69 N.	Aug. 31	59.5	4038	32	
0	Sept. 5	75.5	510	66	74
24 S.	26	72.5	480	70	70
34 44' S.	Oct. 11	60.5	600	57	59
37 N.	Jan. 8	46	6	40	37
	10	43.6	50	43.6	43.6
55 40' N.	20	47	110	51.5	40
39 30 N.	28	53	110	59	59
2 55 N.	Feb. 25	81	58	81	81
2 50 N.	26	83	110	81	84.5

As the water in the high northern and southern latitudes is, by cold, rendered heavier than that in lower warm latitudes, hence arises a perpetual current from the poles to the equator, which sometimes carries down large masses of ice, which cool the air to a great extent. Inland seas of great extent have been frozen in very severe winters. In 1668, the Baltic was so firmly frozen, that Charles XI. of Sweden, carried his whole army over it ; and the Adriatic was frozen in 1709. The temperatures of land and water differ more in winter than in summer ; for in winter, inland countries, from lat. 49°

to 70° , are frequently cooled down to 40° , 50° , and some to 70° below the freezing point; whereas, the sea below lat. 76° is not colder than 4° below that point in the northern hemisphere, except some narrow seas in the north Pacific ocean; but in summer, no considerable extent of land is heated to more than 15° or 20° above the temperature of the sea, stony and sandy deserts excepted.

The temperatures of the smaller seas, in general, if not surrounded with high mountains, are a few degrees warmer in summer, and colder in winter, than the standard ocean; in high latitudes they are frequently frozen.

The White sea is frozen in the winter.

The gulf of Bothnia is in a great measure frozen in winter; but in summer it is sometimes heated to 70° . Its general temperature in July is from 48° to 56° .

The German sea is about 3° colder in winter, and 5° warmer in summer, than the Atlantic.

The Mediterranean sea is, for the greater part of its extent, warmer, both summer and winter, than the Atlantic, which, for that reason, flows into it. It is sometimes frozen in the neighborhood of Venice.

The Black sea is colder than the Mediterranean, and flows into it.

The Caspian sea is situated in the vicinity of high mountains, and is in a great measure frozen in winter. Its level is said, by Pallas, to be lower than the ocean.

Some idea may be formed what altitudes on the surface of the globe are accessible to men, by considering the height above the sea of the inferior line of perpetual snow. In the middle of the torrid zone, it appears, from Mr. Bouguer's observations, to be elevated 5201 yards, and 4476 about the tropics. In middle latitudes there is constant snow at the height of 3300 yards. In lat. 80° north, Lord Mulgrave found the inferior line of snow to be at the height of 400 yards: whence we may conclude, that at the poles, there is constant snow upon the surface of the earth.

M. Humboldt, in his table of the *snow line*, or lower limit of congelation in different latitudes, states, that, under the equator in S. America, on the Andes, near Quito, Chimborazo peak, the *perpetual snow line* is 2445 French toises* above the level of the sea, and 880 toises below the summit of Chimborazo. In the latitude of Mexico, 20° N. on Mount Popocatepetl, the perpetual snow line is 2300 feet. In Mont Blanc, in the latitude of 45° N. 1400. In Sweden and Norway, N. lat. 65° , 700 toises.

In June, 1802, M. Humboldt ascended 19,400 feet on the Chimborazo mountain, which is probably the highest point ever before attained by man, and beyond which it would be too hazardous to life to proceed. The highest flight known of the Condor is 21,000 feet. M. Lassac ascended in a balloon, from Paris, 16th Sept. 1804, to the height of 22,900 feet. No one has ascended beyond this height.

* The French *toise* is to the English fathom nearly as 16 to 15; and the English fathom is 6 feet: from which data the heights above may be calculated.

ATMOSPHERE AND WINDS.

Air is a fine, invisible fluid, surrounding the earth, and extending some miles above its surface ; and that collection of it, together with the bodies it contains, circumscribing the earth, is called the *atmosphere*.

The constitution of the atmosphere is made up of four parts. 1. Air, properly so called. 2. Aqueous vapor. 3. Carbonic acid gas, or what has been called fixed air. 4. Certain other substances, not yet exactly determined.

The mobility of the atmosphere, in connexion with some of its qualities and powers now enumerated, is the origin of two interesting phenomena, *sound* and *wind*.

The air is susceptible of vibratory motion ; and a degree and particular kind of this motion produces *sound*. Vibrations communicated to the air by a sonorous body are propagated somewhat in the manner of waves on the surface of water, and with the velocity of about 13 miles in a minute.

Few natural bodies have been the subject of more experiments than the air ; and from these it appears, that it is both heavy and elastic. By its gravity, it is capable of supporting all lighter bodies, as, smoke, vapors, odors, &c. And by its elasticity, a small volume of air is capable of expanding itself in such a manner as to fill a very large space, and also of being compressed into a much smaller compass. Cold has the property of compressing air, and heat of expanding it. But as soon as the cause of expansion or compression is removed, it will return to its natural state. Hence, if an alteration be made in any part of the atmosphere, either by heat or cold, the neighboring parts will be put in commotion by the effort which the air always makes to recover its former state.

Wind is nothing more than a stream or current of air, capable of very different degrees of velocity, and generally blowing from one point of the horizon to its opposite. The horizon, like all other circles, is divided into 360 degrees ; but as these divisions are too minute for common use, it is also divided into 32 equal parts, called *rhumbs*, or *points of the compass*. Winds are denominated east, west, north, south, &c. according to the points of the compass on which they blow ; and, with respect to their direction, are distributed into three classes, viz. general, periodical, and variable.

General winds are such as blow always nearly in the same direction. They are found to prevail in the Atlantic and Pacific oceans between the latitudes of about 28 degrees north and south ; blowing generally at the equator from the east, on the north side of it between the north and east, and more northerly the nearer the northern limit ; and on the south side, between the south and east, and more southerly the nearer the southern limit ; and are also called *tropical* or *general trade winds*.

Winds mostly originate in variations of the temperature of the atmosphere. An increase of heat in any part rarefies the air, and as the resistance is least above, produces an ascending current, which

diffuses itself at some greater altitude, where the density is less, and at the same time the ambient colder air rushes to the rarefied part to restore the equilibrium, and thus winds blow toward it on every side. On the contrary, cold condenses the air; and a partial condensation produces winds blowing in every direction from the condensed part.

The superior degree of heat near the equator, produced by the action of the sun, in connexion with the earth's rotation on its axis, may be considered as the cause of the general winds. For, in consequence of greater heat, the air becomes more rarefied, and currents flow thither from the northern and southern regions; that is, a north wind is produced on the north side of the equator, and a south wind on the south side. And, since the velocity of the diurnal motion is greater at the equator than in any parallel of latitude, and since the air, having this motion in common with the earth, when at rest with respect to the earth, is proportionally swifter at the equator; it follows, that a current moving from the north or south toward the equator, having less velocity toward the east than the equatorial region, will have a relative motion toward the west; that is, it will become an easterly wind, blowing between north and east on the north side of the equator, and between south and east on the south side.

Periodical winds are such as blow nearly in certain directions during certain periods of time. The *monsoons* or *shifting trade winds*, and the *land and sea breezes*, are of this kind. The monsoons blow six months in one direction, and then six months in the opposite, the changes happening about the times of the equinoxes. These winds chiefly prevail in some parts of the Indian Ocean. The land and sea breezes are winds, which blow from the land in the night, and from the sea in the day time, changing their direction every 12 hours. They obtain in some degree on the coast of every country, but are most remarkable between the tropics. At the islands between the tropics, the sea breeze begins about nine o'clock in the morning, and continues till about nine in the evening; a land breeze then succeeds, and continues till about nine the next morning.

The periodical winds arise from the difference in the temperature of the air over land, and of that over water, occasioned by their not acquiring or losing equal degrees of heat in a given time. The Indian ocean is bounded on the east and north by part of Africa, Arabia, Persia, and India, the shores of which are situated within the limits of the trade winds; and the sun, after the vernal equinox, renders the air above these extensive tracts of land hotter than that above the adjacent sea, and thus produces a wind, which soon begins to blow toward the land. This direction of the wind continues from April to October, when, the sun having passed to the south side of the equator, the air over the land toward the north becomes colder than that over the water, the direction of the wind is inverted, and it blows on the opposite point the remaining six months of the year. And with respect to the land and sea breezes, the effect of the sun in heating the air over the land in the day time being greater than the heat it produces in the air over the adjacent seas, sea breezes

arise ; and in the night, the air, which before was hottest, becomes and continues coldest, and a land breeze is the consequence.

Variable winds are those which are subject to no regularity of duration or change. All the winds in latitudes higher than 40° are of this kind.

Between 28° and 40° of south latitude, and between 30° of west and 100° of east longitude from London, the wind is by far the greater part of the time between northwest and southwest ; and between the northern limit of the general trade wind, and the parallel of 40° in the Atlantic ocean, the westerly winds prevail, but with less certainty.

Between the fourth and tenth degrees of N. lat. and between the longitudes of Cape Verd and the easternmost of the Cape de Verd Islands, is a tract of sea, which seems to be condemned to perpetual calms, attended with dreadful thunder and lightnings, and such frequent rains, that it has acquired the name of the *Rains*. This phenomenon seems to be caused by the great rarefaction of the air on the neighboring coast, which causes a perpetual current of air to set in from the westward, and this current meeting here with the general trade wind, the two currents balance each other, and cause a general calm ; while the vapors carried thither by each wind, meeting and condensing, occasion these frequent deluges of rain.

Dr. Derham, from repeated observations upon the motion of light, downy feathers, found that the greatest velocity of the wind was not above 60 miles in an hour. But Mr. Bruce justly observes, that such experiments must be subject to great inaccuracy, as the feathers cannot proceed in a straight line ; he therefore estimates the velocity of winds by means of the shadow of a cloud over the earth, by which he found, that, in a great storm, the wind moves 63 miles in an hour ; in a fresh gale, 21 miles an hour ; and in a small, pleasant breeze, 10 miles an hour. Mr. Rouse makes the velocity of a hurricane, that tears up trees, and overturns buildings, &c. 100 miles an hour.

CLOUDS.

The *clouds* are considered the product of vapors exhaled from the sea and land, and which have combined together by certain laws, hitherto not perfectly ascertained. They are rarely formed in the lower strata of the atmosphere, the vapors from which they proceed, ascending, by their less specific gravity, to the higher regions, where the combination takes place. Clouds are not suspended more than a mile above the surface of the earth ; consequently, a person beyond that height, on a mountain, sees the clouds below him. All clouds are more or less electrified ; those the most so, descend nearest the earth. Clouds move in the direction of the winds. The various figures of the clouds are caused partly by their loose and mobile texture, and partly by their electricity ; their colors depend on their situation in respect to the sun, and their aptitude to reflect and refract his rays.

TIDES.

By the term *tide* is meant the regular alternate rising and falling of the water in the seas and rivers. The phenomena of the tides occasioned a variety of opinions among the ancient philosophers, and the cause was considered as one of the greatest mysteries in nature. It remained in obscurity till the latter end of the 16th century, when Sir Isaac Newton clearly pointed it out, and showed the agreement of its effects with the observed phenomena.

The flowing and ebbing of the sea are to be attributed to the attraction of the sun and moon; but principally to that of the moon, because nearer to the earth.

The tides are higher than ordinary twice a month, viz. about the times of the new and full moon; and these are called *spring tides*. Because at these times the attraction of the sun conspires with that of the moon, or their agency is in the same right line; and consequently the tides must be more elevated. When the two luminaries are in conjunction, or on the same side of the earth, they both conspire to raise the water on the nearest and remotest part; and when they are in opposition, that is, when the earth is between them, the part nearest to the one is remotest from the other, and *vice versa*; consequently the effects of their agency are united.

The tides are less than ordinary twice a month; that is, about the times of the first and last quarters of the moon; and these are called *neap tides*. For in the quarters of the moon, the sun raises the water, where the moon depresses it; and depresses it where the moon raises it; the tides are made, therefore, by the difference of their actions.

Such would be the phenomena of the tides, were the whole surface of the earth covered with water; but as this is not the case, there being beside the continents a multitude of islands, lying in the way of the tide, and interrupting its course; therefore in many places near the shores, a great variety of other appearances, beside those already enumerated, arise. These require particular solutions, in which the shores, straits, shoals, rocks, and other objects, must be considered. What has been said will be sufficient to explain the theory of the tides in general, and enable the reader to pursue the inquiry, and solve the difficulties that may arise with regard to any particular place.

RAIN GAUGE.

The *Rain Gauge* is an instrument to show the quantity of rain which falls upon the earth at any place where you may wish to make observations. It consists of a funnel, communicating with a cylindrical tube at its bottom, into which the rain is conveyed by the funnel. The depth of the water in the cylinder is measured by a rule fixed to a float, the rule passing through the centre of the funnel. The divisions on the rule show the number of cubic inches of water

that have fallen on a surface equal to the area of the top of the funnel. The funnel is so contrived as to prevent the water from evaporating.

To use the rain gauge, so much water must first be put into the cylinder as will raise the float, so that 0 on the rule may exactly coincide with the aperture of the funnel. The gauge should be firmly fixed in a place, where, whatever winds blow, the fall of the rain may not be intercepted by any obstacles. By this instrument, the mean *annual* depths of rain in inches at the places below, has been determined.

	Inches.
London - - - -	21·4
Paris - - - -	19·6
Pisa, in Italy - - - -	43·25
Zurich, Swisserland - - - -	32·25
Lisle, Flanders - - - -	24·0

It appears that the most rain falls in places near the sea coast, and less and less as the places become more inland. The quantity which falls on the western coast of England is sometimes twice as much as falls at London. It is also found, that the nearer the instrument is to the ground, the more rain it collects.

HYGROMETER.

The *Hygrometer* is an instrument to measure the moisture and dryness of the air; and is formed of substances which will expand or contract upon any alteration of moisture. Wood expands by moisture, and contracts by dryness; on the contrary, cord, catgut, &c. contract by moisture, and expand by dryness; and various mechanical contrivances have been invented, to render sensible the smallest variations in the lengths of these substances.

SUPERFICIAL CONTENTS OF THE GLOBE, &c.

The superficial content of the whole globe has been estimated at 199,000,000 square miles, 60 miles to a degree; of seas and unknown parts, 160,000,000: the inhabited world, 39,000,000—America, 14,000,000; Asia, 10,500,000; Africa, 9,500,000; Europe, 2,600,000; N. Holland, 4,000,000; Borneo, 228,000; Madagascar, 168,000; and Sumatra, 129,000.

INTRODUCTION.

A TABLE,

*Exhibiting the heights of some of the most remarkable Mountains and Places in both Hemispheres from the level of the sea, in English feet.**

Western Hemisphere.		Eastern Hemisphere.	
	Feet.		Feet.
Greatest altitude that palms and bananas grow in,	3280	Madrid in Spain,	2276
Town of Caracacas,	3490	Plynlimmon, (Wales)	2468
Jorulla, (volcano) Mexico,	4265	Cheviot Hills, (Northumberland)	2658
La Souffriere, volcano of Guadeloupe,	5110	Mt. Vesuvius, (Italy)	3935
Inferior limit of pines in the torrid zone,	5685	Ben Nevis, (Scotland) highest in Great-Britain,	4370
Stony Mountains, N. America, Mexico,	6250	Snæ, Fiall, (Iceland)	4560
Blue Mountains, north peak, Jamaica,	7525	Mt. Ida, (Turkey)	4960
Volcano of Imbabura, frequently ejects fish, (Quito)	8180	Mt. Hecla, (Iceland)	5010
Real del Monte Mine, (N. Spain)	8960	Puy de Dome, (France)	5225
Superior limits of oaks in the torrid zone,	9125	Mt. Reculet, (Switzerland)	5590
Highest limit of trees,	9630	Roettruck, (Sweden)	6000
Town of Micupampa, (Peru)	10500	Mt. d'Or, (France)	6190
Lake of Toluca, (Mexico)	11125	Mt. Olympus, (Turkey)	6500
Superior limits of pines in the torrid zone,	11670	Mt. Genis, (Alps)	6780
Farm Ho. of Antisana,	12195	Convent of St. Gothard, (Alps)	6810
Pambamarca, (Andes)	12800	Peak of Montaigne, (Pyrenees)	7310
Heights of Assuay, the ancient Peruvian road,	13435	Volcano, (Isle of Bourbon)	7680
Lower limit of perpetual snow, on the equator,	13500	Convent on Mount St. Bernard, (Switzerland)	8400
Tonguragua Volcano, (Quito)	15540	Snæbotten, (Norway)	8295
Cotacachi Mountains, (Andes)	15730	Mt. Valina, (highest of the Apennines)	8300
Volcano of Papocatepill, or great volcano of Puebla, (Mexico)	16270	Peak of Lomnitz (Carpathian Mts.)	8640
Mount St. Elie,	16450	Mount St. Gothard, (Alps)	8930
Highest limit of lichen plants,	17720	Perpetual snow in Switzerland above the altitude of 8 or 9000.	
Volcano of Catopaxi, (Andes)	18090	Mt. Libanus, (Turkey)	9535
Antisana, volcano, (Andes)	18225	Awatsha volcano in Kamschatka,	9600
Height attained by Messrs. Humboldt & Bonpland, 23d June, 1802,	18875	Pic Blanc, (Alps)	10205
Ejajambe, (Quito, Andes,)	19150	Italitzkoi Mts. (Altai chain, Asia)	10735
Highest flight of the Condor,	19400	Mt. Etna, (Sicily)	10950
Chimborazo, the highest point of the Andes,	21000	Le Vignemal, (Pyrenees)	11010
	21470	Mt. Perdu, do.	11265
		Peak of Venlatta, (Spain)	11390
		Mulachacen, do.	11670
		Peak of Teneriffe,	12176
		Finisterraharn, (Alps)	12210
		Seohonda Mts. (China)	12800
		Broet-Horn, (Switzerland)	12815
		Pt. Osor, (Alps)	13465
		Peak of Jungfrau, (Switzerland)	13735
		Mt. Ophir, (Sumatra I.)	13842
		Mt. Pelvoux, (France)	14215
		Mt. Cervin, (Switzerland)	14780
		Ortler Spilz, (Tyrol)	15430
		Mt. Blanc, (Alps, highest in Europe)	15665
		[M. Lasso ascended in a balloon from Paris, 16th Sept. 1804, the height of 22900 feet.]	
		Himalaya, or Himmaleh Mts. between Hindoostan and Tibet, supposed to be the Mons Imaus of the ancients,	24625
		Jamatari, (Napaul)	25500
		Dhawalageri, (Napaul)	27677

* From Thompson's Atlas of 1817.

LENGTH OF MILES IN DIFFERENT COUNTRIES.

There is scarcely a greater variety in any thing than in this sort of measure; not only those of separate countries differ, as the French from the English, but those of the same country vary in the different provinces, and all commonly from the standard. Thus, the common English mile differs from the statute mile, and the French have three sorts of leagues.

We shall here give the miles of several countries, compared with the English, by Dr. Halley.

The English statute mile consists of 5280 feet, 1760 yards, or 8 furlongs.

Eleven Irish miles are equal to fourteen English.

The Russian vorst is little more than $\frac{1}{3}$ English.

The Turkish, Italian, and old Roman less mile, is nearly 1 English.

The Arabian, ancient and modern, is about $1\frac{1}{2}$ English.

The Scotch mile is about $1\frac{1}{2}$ English.

The Indian is almost 3 English.

The Dutch, Spanish, and Polish is about $3\frac{1}{2}$ English.

The German is more than 4 English.

The Swedish, Danish, and Hungarian is from 5 to 6 English.

The French common marine league is nearly 3, and

The English marine league is 3 nautical miles.

SCRIPTURE MEASURES OF LENGTH.

Digit							Eng. Yds. Ft. Inches.		
							0	0	0-912
4	Palm						0	0	3-648
12	3	Span					0	0	10-944
24	6	2	Cubit				0	1	9-888
96	24	8	4	Fathom			2	1	3-552
144	36	12	6	$1\frac{1}{2}$	Ezekiel's Rod		3	1	11-328
192	48	16	8	2	$1\frac{1}{3}$	Arabian Pole	4	2	7-104
1920	480	160	80	20	$13\frac{1}{3}$	10 Schænus, or Measuring Line	48	1	11-04

THE LONGER SCRIPTURE MEASURES.

					Eng. Miles.	Yds.	Feet.
Cubit					0	0	1·824
400	Stadium				0	243	0·6
2000	5	Sabbath Day's Journey.			0	1216	0·
4000	10	2	Eastern Mile		1	672	0·
12000	30	6	3	Parasang	4	256	0·
96000	240	48	24	8 A Day's Journey	33	288	0·

The East used another span equal to one third of a cubit.

The above are sacred measures, in the lengths of which there must necessarily be some degree of uncertainty. Arbuthnot makes the sacred cubit equal to 1·7325 feet. He also observes, that the Jews sometimes made use of a profane cubit, the length of which he determined to be 1·485 feet.

DIFFERENT TIMES WHEN THE DAY BEGINS; AND A SHORT ACCOUNT OF THE OLD AND NEW STYLE.

The ancient Egyptians and Romans supposed the day to begin at midnight; and it is also now considered by the United States of America, Great-Britain, France, and most European countries, as beginning at that time. In astronomy, however, it is supposed to begin at noon, or the time when the sun is on the meridian. The beginning has been fixed at sunrise by some nations, as the ancient Babylonians, Persians, &c. and at sunset by others, as the ancient Jews, Grecians, &c.

In the *Julian Calendar*, or *old style*, a method of reckoning time adopted by Julius Cæsar, about 45 years before the birth of Christ, which was much preferable to any that preceded it, a year was supposed to consist of 365 days and 6 hours; each of 3 years in succession was considered as a common year of 365 days, and on account of the annual excess of 6 hours, another was added to every fourth, which consequently consisted of 366 days, and was called *leap year*. As the solar year, or the time of the apparent annual revolution of the sun, is not exactly 365 days and 6 hours, but nearly 365 days, 5 hours, 48 minutes and 48 seconds, it follows, that the Julian year exceeded the solar by about 11 minutes and 12 seconds. This annual excess amounts to 1 day in 129 years. Notwithstanding this inaccuracy, the Julian style was generally used in Europe till the year 1582, when it was reformed by Pope Gregory the thirteenth, who introduced what is called the *Gregorian or new style*.

It having been found that the vernal equinox, which had been fixed to the 21st of March by the council of Nice, held in the year 325, happened the 11th of March in 1582, the difference of 10 days between the civil and real time was taken from the October of that year, and the 21st of the next March reduced to the true time of the equinox. But the Protestant states refused, at that time, to accede to the new style, which the Pope had enjoined on all the ecclesiastics within his jurisdiction, and exhorted the Christian princes to adopt in their respective dominions; and it did not commence in the British empire, of which the present United States of America then made a part, till the year 1752, when, the error having increased to 11 days, they were, by an act of parliament, struck out of the calendar from the month of September, the third day, according to the old style, being called the fourteenth.

The reformation of the calendar consisted not only in expunging the excess of the civil above the real time, but also in the introduction of a principle which should prevent a like accumulation of error in future. According to the old style, the last year of every century is a leap year; but in the new, only every fourth of these leap years is retained, the rest being considered as common years. This diminution of the number of leap years nearly balances the error, which, at the rate of 11 minutes and 12 seconds a year, amounts to 1 day in 129 years, and 3 days in about 4 centuries.

It is, however, to be observed, that at the above annual rate of 11 minutes and 12 seconds, the accumulation in 4 centuries is 3 days, 2 hours, and 40 minutes; so that the deduction of 3 days in 4 centuries, falls short of the difference between the civil and real time by 2 hours and 40 minutes, which error will become equal to 1 day in 36 centuries.

THE EARTH.

EXTENT AND POPULATION, ORIGINAL POPULATION, HISTORICAL EPOCHS, RELIGIONS, DIVISIONS, ARRANGEMENT.

Extent and Population. THE globe, which we inhabit, contains on its surface about 197 million square miles; others say 199. The numbers of the human race have been variously estimated. In a late work of respectable authority,* states the amount, after as much accurate inquiry as the subject admits, at about 700 million. Of this, Asia, including the Eastern and South Sea Islands, may contain 400 million, Europe 180, Africa 80, and America 40. Others have reckoned the whole number at 765 million. In this work we have supposed the Eastern

* Thompson's Atlas, 1817, Introd. p. xxiii.

continent, including Australasia and Polynesia, to contain 550 million,* and the Western continent, exclusive of its islands, 35 million, making only 585 million in the whole. This may be below the true number, but the others, it is believed, are above it.

Original Population. The Sacred Scriptures give us the only authentic account of the manner in which the earth was originally peopled. From them we learn, that the whole family of man is descended from a single pair, *whom God created out of the dust of the ground*; that man was destined for immortality, and that "death and all our wo" have been the consequence of his transgression. The state of man was originally a state of civilization. No vestiges of a savage state are discoverable before the building of Babel. The first man was a gardener, the second a husbandman, the third a shepherd; and Noah was acquainted with the cultivation of the vine. The distinction of property was early recognized. Marriage was acknowledged as a divine institution. The sabbath was appointed; sacrifices were offered; and tithes rendered. Many of the arts appear, either to have been divinely taught, or early invented. Cain, the first born of the human race, *built a city*; and of course knew all the arts which such an undertaking requires. Tubal invented the harp and organ. Tubal-Cain was an artificer in brass and iron; and must therefore have known the various steps by which these metals are prepared for the manufacturers. "*Bows of steel, and moulten mirrors*" require, also, superior skill in the artist. Noah was well acquainted with the division of quadrupeds into *clean and unclean*, which depended on an accurate classification of them into four *genera*. Aquatic animals were divided into the same number of kinds. Astronomy is also proved, by a variety of circumstances, to have been considerably known before the deluge. Soon after that event, when called to divide the earth among the various families of his posterity, and to disperse them over it, an extensive knowledge of the geography of the various countries must have been requisite. Writing was known, also, long before the time of Moses. Government was originally patriarchal; afterwards tyrannical. The true God was at first generally worshipped; afterwards *atheism* appears to have been almost universally prevalent; but there are no traces of *idolatry* before the flood.

To prevent this divinely appointed dispersion of the human family,† the tower of Babel was begun by Nimrod and his party, who were principally descendants of Ham, in connexion with numbers of the children of Japheth and Shem. These were the first idolaters. Many of the children of Ham, as the colonists of Egypt and Syria, were not united with him. His empire was soon overthrown, the language of his party confounded, and his adherents scattered over the face of the earth. They do not appear to have had any part or

* See Vol. ii. p. 6.

† This, the prevention of their dispersion, seems to have been the motive for the mutual encouragement of those engaged in building this tower. The passage in the Bible relating to this subject, may be justly rendered thus: "Let us build a tower whose top may reach to heaven, and let us make it a mark lest we be scattered!" *President Goguet's Translation.*

lot in the division made by Noah ; but to have become very extensively vagabonds and robbers, of whom all early nations seem to have had traditions, and to have been described under the common name of *Giants*.

The division of the earth by Noah among the rest of the human race, happened immediately before the building of Babel, at the birth of Peleg, the son of Eber. To Shem fell the south of Asia ; and the Jews, Arabs, Persians, Hindoos, the inhabitants of farther India, and of the Asiatic Isles, are numbered among his descendants. Japheth got possession of northern and central Asia ; of the isles of the *Gentiles*, or Europe ; and finally of America. China appears originally to have been settled by a Tartarian population, with which a Hindoo colony afterwards intermixed. Japan may claim this mingled parentage. Africa and Syria were allotted to Ham. From Syria, his descendants, the Philistines, were never thoroughly rooted out by the children of Israel. Except the Barbary states, in which we find a confused medley of *people, nations, and languages*, and the Bedouins, or Arabian freebooters, the African population is now almost purely the offspring of Ham. Egypt is to this day called *Misr*, and the Egyptians *Misraim* ; Abyssinia, *Cush* ; and Syria, Abyssinia and Egypt, united are called *Ham*, by the Asiatic and African Arabs.* The true religion was generally preserved long after this event. Abraham found it in the kingdoms of Abimelech and Pharaoh, and perhaps it was never purer than in the countries of Melchizedec and Job. In Mesopotamia, it certainly lasted till after the days of Jacob.

What is now called the *Chaldean*, was Abraham's vernacular tongue, which was spoken in Mesopotamia among his brethren of the family of Eber, who occupied the whole of that country after the overthrow of Nimrod. The *Hebrew* was the language of Syria. Abraham learned it in consequence of his living in that country.

The language, the arts, and the civilization of the various nations, thus dispersed, depended on the circumstances in which they were placed. In several, these underwent for a long time no perceptible variation ; other nations, in consequence of their remoteness from their neighbors and from the sea—their change of climate and soil—and their difficulty of procuring the metals, particularly iron—appear early to have become barbarians. Armenia, or the country round the sources of the Euphrates and the Tigris, was the scene of this division. In it and the countries adjacent, were collected the arts and the letters of the earliest ages ; while, in more distant regions, hardly a vestige of either was to be found. Profane history teaches us, that to Hindoostan, to Persia, to Mesopotamia, and to Egypt, the remoter nations resorted for the learning and the inventions, which their fathers had forgotten ; and carried them from these countries gradually westward to the farther limits of the continent. At an earlier period, as we learn from the book of Job, almost every art and science was familiarly known in Arabia. Nor was this state of things probably altered, till the children of Ishmael, freebooters,

* Jackson's Morocco.

according to prophecy, as well as by descent, had become the only Arabs.*

Historical Epochs. Under this we shall notice those events only, which have effected important changes in the condition of the earth and its inhabitants. Among these are the following.

The *Creation* of the Earth, in six days, out of nothing. This took place, according to the Hebrew, or commonly received chronology, 1656 years before the flood; according to the septuagint, 2242 years.

The institution of the *Sabbath*, on the seventh day of the creation.

The *Fall* of our first parents, and the consequent curse on them and their posterity. The period of this event is unknown.

The *Deluge*, which overspread the face of the whole earth, and unpeopled it of all its inhabitants, except one family. Dr. Hales supposes that this event took place, A. M. 2256. In this he follows the chronology of Josephus. The common reckoning places it in 1656.

The *division of the earth* by Noah among his children and grand children, according to their families, about the time of the birth of Peleg.

The *building of Babel*, by Nimrod, and his adherents, the subsequent confusion of their language, and their consequent dispersion over the earth. These were the Titans of Greece.

The *establishment of the Assyrian empire*, by Ashur, grandson of Noah, A. M. 1787; B. C. 2217. He built the city of Nineveh.

The *establishment of the Egyptian Monarchy*, by Misr, the son of Ham, and his children, the Misraim; A. M. 1816. B. C. 2188.

The *call of Abraham*, and the *promulgation of the Abrahamic covenant*, by which God first entered into covenant with man, and a church of God was first established on earth, A. M. 2083. B. C. 1921.

The *colonization of Athens*, by Cecrops, from Egypt; A. M. 2448. B. C. 1556.

The *settlement of Troas* by Teucer, the son of Scamander; A. M. 2502. B. C. 1502.

The *giving of the moral law*, and the *formation of the Jewish Church*. A. M. 2513. B. C. 1491.

The *siege of Troy*, which lasted ten years, and terminated in the destruction of that city, in the 40th year of the reign of Priam, the 5th from Teucer, A. M. 2820. B. C. 1184.

The *Colonization of Asia Minor*, by the sons of Codrus, in conjunction with the Thebans and Ionians; A. M. 2935. B. C. 1069.

The *Building of Rome*, A. M. 3256. B. C. 748.

The *overthrow of the Assyrian empire* by Nebuchadnezzar, king of Babylon, A. M. 3403. B. C. 601.

The *overthrow of the Babylonian empire* by Cyrus the Great, king of Media and Persia. A. M. 3466. B. C. 538.

The *subversion of the liberty of Greece*, by Philip of Macedon. A. M. 3667. B. C. 337.

* See Davies's *Celtic Researches*; likewise Jones's *Asia and Asiatic Researches*.

The overthrow of the Persian empire by Alexander of Macedon, at the battle of Issus. A. M. 3671. B. C. 333.

The division of the empire of Alexander among his generals.

The destruction of Carthage by Africanus the younger. A. M. 3858. B. C. 146.

The termination of the Egyptian monarchy by the death of Cleopatra. A. M. 3974. B. C. 30.

The birth of the Redeemer. This great event, so long foretold by the prophets of Judea, is universally believed to have taken place in the year of the world 4000, according to the Hebrew chronology, 4 years before the commencement of the vulgar Christian era.

The crucifixion of Christ ; A. M. 4036. A. D. 33.

The commission of the Apostles to convert mankind to the religion of Christ.

The division of the Roman empire into four parts under Dioclesian, Galerius, Maximian, and Constantius, A. M. 4295. A. D. 392.

The baptism of Constantine the Great, the first Christian Roman emperor ; who for 24 years had uniformly and powerfully befriended Christianity, A. M. 4340. A. D. 337.

The final division of the Roman empire into the eastern and western, between Arcadius and Honorius, by their father Theodosius the Great. A. M. 4398. A. D. 395.

The taking of Rome by Alaric, A. M. 4412. A. D. 409.

The establishment of the kingdom of France under Clovis, A. M. 4513. A. D. 510.

The establishment of the kingdom of the Lombards, in Italy, which lasted 200 years, A. M. 4571. A. D. 568.

The birth of Mahomet, A. M. 4581. A. D. 578.

The irruption of the Saracens into Africa. They had previously conquered all the south-west of Asia, A. M. 4650. A. D. 647.

The final expulsion of the Saracens from Europe, after they had made many vigorous, but unsuccessful attempts to establish themselves in it, for 291 years. A. M. 4965. A. D. 962.

The invasion of the Eastern empire by the Turks under Tangro-lipix. A. M. 5044. A. D. 1041.

The commencement of the Crusades, under the conduct of Godfrey of Bouillon. A. M. 5098. A. D. 1095.

The establishment of the Mogul empire by Jenghis Khan, A. M. 5209. A. D. 1206.

The acknowledgment of the Pope's supremacy, by Palcologus, of the council of Lyons. A. M. 5278. A. D. 1275.

The conquest of Syria, Persia, the Mogul empire, and Hindoostan, in 1398, and 1399, and the defeat of Bajazet the Turk, two years afterwards, by Tamerlane.

The invention of gunpowder, not far from the year 1280.

The invention of the mariner's compass, A. D. 1302.

The invention of printing, in the year 1430.

The capture of Constantinople by the Turks, May 29th, A. M. 5456. A. D. 1453. This sad catastrophe occasioned the disso-

lution of the Constantinopolitan empire, and finally established that of the Turks in Europe.

The *revival of learning* at Florence, under the patronage of the house of Medicis.

The *discovery of America by Christopher Columbus*, A. D. 1492.

The *discovery of the passage round the Cape of Good Hope*, by Vasco de Gama, A. D. 1497.

THE REFORMATION, which had been attempted in France by Waldo, and his followers, the Waldenses, in the 12th century; in England, by John Wickliffe, in the 14th; and in Germany, by John Huss and his coadjutors, in the 15th; was strenuously and successfully forwarded and accomplished by Luther and Melancthon in Germany, and Zuinglius in Switzerland, and Calvin at France and at Geneva, in the middle of the 16th century.

The *American revolution*, 1776.

The *French revolution*, 1789.

The *institution of London Missionary Society*, 1795.

The *introduction of vaccination*, by Jenner, 1798.

The *coronation of Bonaparte* as Emperor of France, 1804.

The *abolition of the slave-trade* in England, Denmark, and the United States, in March, 1807.

The *establishment of the British and Foreign Bible Society*, 1808.

The *downfall of Bonaparte*, and consequent emancipation of Europe, and a general peace throughout the world, 1815.

Religions. The religion of our first parents, before the Fall, was *Natural Religion*. The worshipper asked for blessings, not on account of the merits of an intercessor, for he had never offended; but on the ground of a strict obedience to the law of God. This is the religion of all beings of unspotted innocence.

After the Fall, the religion of Adam, and for a considerable time, that of his posterity, was *Patriarchal*. The father of the family was the priest, who, for his own and their sins, offered up sacrifices to God, merely as types of the great SACRIFICE, who was, in due time, to be offered for the sins of the whole human family. This form of religion continued among the descendants of Enos, till the flood; and after the flood, we find it, in the time of Abraham, in Mesopotamia, in Syria, and in Egypt, as the settled religion of those countries. We find it also, after this, in great purity, in the country of Job, and still later existing in Laban's family in Mesopotamia. Among the children of Israel it continued till the giving of the Law on Mount Sinai. Had history been faithful to her trust, probably many glimpses of it might have been discoverable for centuries afterwards.

The first corruption of the patriarchal religion was *Atheism*, or a denial of the existence of God. This appears to have prevailed early in the family of Cain, and to have spread, before the deluge, over the great body of the human race. The second corruption was *Gentilism*, or the worship of false gods. This is supposed, as we have already observed, to have been introduced under the empire of Nimrod; and when that empire was broken, to have been scattered by his subjects over the earth. Considerable time, how-

ever, appears to have been necessary to corrupt entirely the primitive religion. The mythology of the earliest nations is not so complete a contrast to truth and purity, as that which we find at later periods. These false gods have been immense in number and kinds. They have been invisible beings, supposed to have a controlling influence over the earth; the sun, moon, and stars; light, fire, air, winds, water, the ocean, seas, rivers, and mountains; men distinguished by their virtues and their vices, the spirits of departed men, evil spirits, and the mere creatures of the imagination; beasts, birds, fishes, reptiles, and insects, and those even of the most loathsome kinds; trees, shrubs, and plants; minerals of every species, from the most precious jewels to the stones of the street. Most Gentiles have been *Polytheists*, or have worshipped more gods than one; most have been *Idolaters*, or have worshipped visible representations of their deities; most have offered sacrifices; and many, human sacrifices. Gentilism spread rapidly and extensively; and, for more than 2500 years, has been the religion of the great body of mankind.

The covenant with Abraham did not give rise to a new religion. It was merely a modification of the patriarchal.

The JEWISH RELIGION was instituted at Mount Sinai, 1491 years before Christ. The children of Israel were taken by God to be his peculiar people, on the single condition, that they would acknowledge and worship him as their God. A solemn covenant was entered into on both sides, in consequence of which He became their Lawgiver, their Judge, and their Saviour. Their religious rites, though numerous and burdensome, were exactly fitted to their circumstances. They offered sacrifices like the patriarchs, as types merely; and were required, together with them, to offer the sacrifice of the heart. This religion ceased in effect at the death of the Redeemer; for then the Spirit from on high was withdrawn, and God refused to accept the offering of the worshipper. Considerable numbers, however, have, in every subsequent age, observed the rites of the synagogue.

Christianity, instituted by Christ, was planted by his Apostles immediately after his death. Baptism was made the seal of initiation into the church, in place of circumcision. A regular ministry was established, whose business it was, not to offer sacrifices, for the Great Sacrifice had already been offered; but to teach mankind the scheme of salvation proposed by the Redeemer, and to call them, by repentance and faith in Him, to everlasting life. The Christian Religion had a rapid progress. By the end of the 4th century it overspread the whole Roman Empire, and numerous and powerful churches were found in Europe, Asia, and Africa. These all, at length, became subordinate to two, the church of Rome, and the church of Constantinople. The churches of Turkey, Asia Minor, Syria, Armenia and Africa were under the control of the latter, while all the west and north of Europe was subject to the former. This division between these churches may be considered as having been completed in 859, when Photius, the patriarch, was excommunicated by the pope, and anathematized him in his turn. It was partly owing

to the division in the empire ; though the eastern and western churches early differed respecting the worship of images.

The temporal power of Rome was much more weakened by the early attacks of barbarians, than that of Constantinople. This gave the spiritual power an undue influence in the government ; and, when Charlemagne made France the seat of the western empire, the pope was without a rival in Italy. His authority after this period increased with a strange rapidity, and at length became supreme. Its influence controlled every rank in life, and watched and guided every action. Kings trembled on their thrones, and the peasant in his cottage. None were too low to receive its notice ; none too high to dread its vengeance. The lamp of science burned only in the monastery, and every one without was involved in the darkness of superstition.

The patriarch of Constantinople, on the contrary, had always a master in the empire. His power was chiefly spiritual. Hence the eastern churches were never thoroughly shackled. And, when Constantinople was taken by the Turks, in 1453, and the eastern Roman empire destroyed, the patriarch was evidently but second in power.

The first serious check to the usurpation of Rome was given in the 12th and 13th centuries, by the Waldenses and Albigenses in the south of France. They were driven into Bohemia, Savoy, and England ; and prepared the way for the subsequent efforts of Wickliffe, Huss, and Knox. From these, however, it in some measure recovered. But, in the 16th century, though Leo X. was pontiff, it found in Luther, Melancthon, Zuinglius, and Calvin, antagonists too formidable to be met ; too wise to be circumvented. Norway, Sweden, Denmark, Prussia, and the north of Germany, Scotland, England, and Switzerland, were finally emancipated from popish thralldom ; and the other nations of Europe loosened their fetters.

The Reformers took the name of *Protestants*, from their protesting, in 1529, against a decree of the emperor Charles V. and the diet of Spire. The great branches of the protestant religion were the Lutherans, the Episcopalians, and the Presbyterians ; for under this latter name may be ranked the *Congregational* churches of Geneva, Switzerland, Holland, and the United States of America, with as much propriety as the church of Scotland.

The Greek Church, the other great branch of the Christian community, suffered extremely by the capture of Constantinople. The power of the patriarch was curbed, and several of his richest provinces were dismembered. The churches of Africa, except the Abyssinian, were in a great measure rooted out ; while those of Armenia, Syria, and Asia Minor, were brought under the most distressing bondage. These losses, however, were supplied, in degree, by the accession of European Russia, the most important part of the patriarchal empire.

Beside the Romish, the Greek, and the Protestant religions, there is still another branch of the Christian church, till lately unknown in Europe. This includes the Syrian Christians, who inhabit the in-

terior of Travancore and Malabar, in the south of Hindoostan.* They were established in that country at no distant period after the ascension of the Redeemer; and, for many centuries, knew no worshippers of the true God but themselves, and the Christians of Antioch. When the Portuguese established their power on the Malabar coast, 1503, they attempted to convert them by force to the Romish church. They succeeded with a part. The rest are to this day, what their churches always have been, episcopal in their form of government. For 1300 years past they have enjoyed a succession of bishops, appointed by the patriarch of Antioch.†

The *Mahometan Religion* is usually considered as having commenced, at Mecca, in 618, the 40th year of the Impostor's life. It professes to acknowledge and to worship the God of the scriptures; and yet, like several classes who style themselves *Christians*, denies the Divinity of the Son and of the Holy Ghost. Its fundamental articles are, *that there is one God, and that Mahomet is his Prophet*. Fire and sword were the means employed to extend it over Persia, Arabia, Turkey, Egypt, and the states of Barbary; and they were employed with success. Mahometanism soon became divided into two great sects, the *Schiites*, the followers of Ali; and the *Sunnites*, the followers of Omar. The former established itself in Persia, and assumed the red turban as its badge. The latter overspread Turkey and its dependencies, wore the white turban, and adhered strictly to the law as left by Mahomet and Omar.

Thus the religions of the world, in the order of their existence, are the religion of Paradise, the Pagan, Jewish, Christian and Mahometan.

The Pagan overspreads northern, central, and eastern Asia; the islands of the Indian and Pacific; central, and southern Africa; the northern and western parts of N. America; and the central and southern parts of S. America. If 765 millions be the number of inhabitants on the globe, we reckon that about 475 millions are Pagans, viz. about 450 in Asia, 20 in Africa, and 5 in America.

The Jews are dispersed over the globe. A small body politic has lately been discovered in Cochin, who are supposed to have settled there soon after the time of the transportation to Babylon. The whole number of Jews on the globe has commonly been estimated at 3 millions.

Christianity is the religion of all Europe, except about one third of the population of Turkey; of all America, that is not Pagan; of Abyssinia, and various European settlements in Africa; and of Georgia, Cochin, and a few Portuguese and English settlements in Hindoostan and the Asiatic isles. The whole number of Christians on the globe is probably about 214 millions, viz. 177 in Europe, 30 in America, 4 in Africa, and 3 in Asia.

The remaining 73 millions are Mahometans, overspreading northern Africa, Arabia, Turkey in Asia, Persia, and the south-

* Buchanan's Researches.

† Ibid.

eastern part of Russia in Asia, and extensively diffused over Hindoostan and Turkey in Europe. Their high-priest is the Mufti, who resides at Constantinople. It will readily be observed that these numbers are not supposed to be accurate. They are, however, according to the best information which we can obtain.

Divisions. The astronomical divisions of the earth by meridians, parallels of latitude, lesser circles, and climates, have already been detailed. The two great natural divisions of the earth are *land* and *water*. About 42 million square miles make up the various divisions of land, and about 155 millions are covered with water. Others consider the ocean as occupying about two thirds of the whole surface of the globe. The northern hemisphere contains a vastly larger portion of land, than the southern, as will appear by a glance at the map of the world. The following are the divisions of land.

CONTINENTS. *A very large extent of country is called a continent.* Of these there are two, the *eastern* and *western*. The eastern comprehends Europe, Asia, and Africa; the western N. and S. America. The eastern has been generally estimated to contain 22,600,000 square miles, and the western 14,000,000. The present population of both, including the islands, is, according to the best data which we possess, about 765,000,000 or $18\frac{3}{4}$ to each square mile of land on the globe.

Europe, Asia, Africa, and America are sometimes also called *the four quarters of the globe*.

New-Holland, the largest island on the globe, has sometimes been considered as a *third continent*.

PENINSULAS. *A peninsula is a tract of land, surrounded by water, except at one narrow neck, by which it is connected with the main.*

Africa and S. America are the largest peninsulas on the globe. Sweden and Norway, Greenland, (probably) Nova Scotia, Malaga, Jutland, Morea, and Crimea, are among the smaller peninsulas of note.

ISLANDS. *An island is a tract of land, smaller than a continent, entirely surrounded by water.* The principal islands on the globe, are New-Holland, between the Pacific and Indian oceans, usually estimated to contain 4,000,000 square miles; Borneo, Madagascar, and Sumatra, all in the Indian ocean; Great-Britain, Iceland, and Terra del Fuego, in the Atlantic; Nova Zembla and Spitzbergen in the Frozen; and Saghalien, Jesso, Nippon, New-Guinea, and New-Zealand, in the Pacific.

ISTHMUSES. *An isthmus is a narrow neck of land, joining a peninsula to the main.* The two most noted isthmuses are that of Darien, which unites N. and S. America, 34 miles wide; and that of Suez, which connects Africa with Asia, 60 miles wide.

PROMONTORIES. *A promontory is a tract of land, projecting far into the sea without an isthmus.* The most noted are Malaya, Kamtchatka, Tchutskoi, California, Italy, Corea, East Florida, Yucatan, and Alaska.

CAVES. *A cape is the termination of a promontory, or of any other tract of land, running into the sea.* The most noted capes are

Cape Horn, Cape of Good Hope, North Cape, Cape Taimour, East Cape, Cape Prince of Wales, Icy Cape, Cape Verd, Cape Guardafui, Cape Comorin, Cape Farewell, Cape Sable, Cape Lucas, and Cape Florida.

MOUNTAINS. *A mountain is a tract of land considerably elevated above the adjacent country.* Mountains are usually found connected together in long chains or ranges; sometimes, however, they are single, isolated eminences. The highest mountains on the globe are those of Napaul and Tibet, back of Hindoostan.* The longest range is the *American Range*, which reaches from the straits of Magellan to the Frozen ocean, almost 10,000 miles, and comprises the Andes in South-America, the Cordilleras of Mexico, and the Stony or Rocky mountains of North-America. Other long ranges are the Altaian, the Uralian, that of Atlas, the Mountains of the Moon, the Apalachian, or Alleghany, the Caucasian, the Alps, and the Pyrenees. The most noted single mountains are Mont Blanc, Ophir, Peak of Teneriffe, Etna, Hecla, and Vesuvius.

The following are the divisions of water.

OCEANS. The largest divisions of water are not like those of land, separated from each other. On this account, considered as a whole, they frequently receive the name of *the Ocean*, or *the Sea*. The word ocean, however, in a subordinate and more common sense, means *a large collection of water, separated partly by land, and partly by a supposed or imaginary boundary, from some other collection.* Of these there are four.

1. The *Pacific*, which has America on the eastern border, and Asia, the Indian ocean, and New-Holland, on the opposite side; on the north it is connected with the Frozen ocean by Behring's straits. On the south an imaginary line, passing from cape Horn to cape South, on Van Diemen's land, separates it from the Southern ocean. Pinkerton proposes a line passing from a headland in New-Holland, in lon. 130° east, through Ceram, along the eastern shore of the Philippines, to the southern cape of Formosa, as the proper separation between the Pacific and Indian oceans. The distance of America and Asia, at Behring's straits, is 48 miles.† This ocean soon widens rapidly. In lat. 59° it is about 1440 miles; in 50°, 4300; in 5° north, its widest point, 10,900; at its southern extremity, 6280. This ocean has a multitude of clusters of islands. The large rivers which empty into it, are the Kianku, Hoang-ho, Amoor, Columbia, and Colorado.

2. The *Atlantic*, which is bounded by America on the west, and by Europe and Africa on the east. It is generally considered as separated on the north, from the Frozen ocean, by an imaginary line passing from North cape due west, to the coast of Greenland; and on the south, from the Southern ocean, by a line passing from the cape of Good Hope, to cape Horn. Its width between Norway and Greenland is not more than 700 miles; between Labrador and Great-Britain, 1700; between the United States and France it is about 3000; in lat. 23° north, its widest point, more than 4500;

* See p. 68.

† Sauer's Expedition, p. 257.

across obliquely from Brazil to Africa, about 1500; and in lat. 34° S. upwards of 3500. Except the islands in the Caribbean sea, called the *West-India islands*, this ocean contains, comparatively, but few. The large rivers which empty into the Atlantic, are the La Plata, Amazon, Orinoko, Bravo, Mississippi, St. Lawrence, Nelson's, and the Rhine.

3. The *Indian* ocean, which lies between Africa on the west, Asia on the north, and New-Holland on the south-east. Its width, in lat. 7° north, is about 2800 miles; on the equator 6000; and in lat. 35° south 4800. The promontory of Hindoostan divides the northern part of this ocean into the Arabian sea on the west, and the bay of Bengal on the east; an imaginary line passing from the cape of Good Hope to New-Holland, is supposed to separate it from the southern. The islands in this ocean are very large and very numerous. The great rivers which flow into it, are the Euphrates, Indus, Ganges, Burrampooter, Irawaddy, and Maykaung, or Japanese river.

4. The *Northern* ocean, which lies north of America, Asia, and Europe. It is commonly said to be 3000 miles over. Its communications with the Pacific and Atlantic have been mentioned. It is principally an immense field of ice, extended round the arctic pole, and, as appears from the late unsuccessful attempt to penetrate it,* forever barring it from the inroads of commerce, and the researches of discovery. The shores of this ocean have been but partially explored. The voyage round the North cape, in Lapland, to the White sea, is very common. From Archangel the Russians have sailed eastward, as far as the mouth of the Petshora, and from the Lena westward, as far as the Katanga. A knowledge of the coast between Petshora and Katanga, is still a desideratum in geography. A single voyage has been made from the Lena eastward, through Behring's straits. This was by a Russian, of the name of Deshnef, in 1648. All subsequent attempts of the same kind have been unsuccessful. Capt. Cook, after passing through Behring's straits, could reach no higher on the Asiatic coast, than cape North, in lat. $68, 56$, lon. $179, 9$, W. On the American, Icy cape, in lat. $70, 29$, lon. $161, 40$, W. was the limit of his discovery. The Tschutski assert, that farther N. the American coast tends to the N. W. and approaches that of Asia. Farther E. the American coast has been discovered, but in two places; in 1789, by M'Kenzie, in about lat. 70° N. and lon. 135° W.; and in 1771, by Hearne, in lat. 72° N. and 119° W. These discoveries were made in journeys by land. Hitherto no voyager has ever found the northern coast of Greenland; and on the other side of the continent no one has ventured farther E. than the Icy cape.†

To this ocean the herring resort in the autumn to breed their young. About the middle of winter they proceed towards the S. in three great divisions. The smallest squadron passes through Behring's straits, and visits the coasts of Kamschatka and Alaska. The main body, passing between Norway and Greenland, reaches

* See, in this vol. page under the head of America, art. *New Discoveries*, its close.

† Coxe's *Russian Discoveries*.

Iceland about the beginning of March, in a close phalanx of surprising depth, and such extent that the surface is supposed to equal the dimensions of Great Britain and Ireland. Here they divide. The western division, passing between Greenland and Iceland, covers the shores of America, as far as the Chesapeake. The vanguard of the eastern reaches the Shetland isles in May, and the main body arrives in June, towards the end of which month, and through that of July, they are in their greatest perfection. From Shetland, one division passes through the German sea, and arrives at Yarmouth in October. The other passes to the west, along both shores of Ireland. In the month of October they are supposed to return to the Arctic ocean.*

ARRANGEMENT.

It will be the object of the following work to give an accurate and comprehensive account of the present state of the various countries on the globe; together with such a summary of their history, as will enable our readers to estimate their relative importance in the various periods of time.

A single glance at the map of the two continents will discover to the eye some of the strongest geographical features of both, which do not belong, exclusively, to the great divisions of either. Thus, in the western, the great American range of mountains extends through the continent; the isthmus of Darien, the gulf of Mexico, and the Caribbean sea, lie between N. and S. America; and the Gulf-Stream coats the shores of both. In the eastern, the Mediterranean lies between Europe, Asia and Africa; the Black sea, and the smaller seas and straits connected with it, together with the rivers Don and Volga, and the mountains of Ural, belong equally to Europe and Asia; and neither Asia nor Africa can present an exclusive claim to the Red sea, or the isthmus of Suez. These considerations have induced us to form two general heads, **AMERICA**, and **THE EASTERN CONTINENT**, and under them to sketch the stronger general lineaments of both.

Of the four quarters of the world, America, the most interesting to our countrymen, will be first described in volume first. Europe, Asia, and Africa will follow in their order, and form volume second.

The countries, which compose the respective quarters of the globe, will be arranged with a general reference to their *geographical* situation. Such an arrangement will best serve to fix on the mind a clear impression of their relative position; and it need not, like the arrangement of Pinkerton, be changed with every new edition of a geography.

Each country will be described under the two following general heads: **HISTORICAL GEOGRAPHY**, and **NATURAL GEOGRAPHY**. The historical geography of a country will include its Extent, Boundaries, Names, Original Population, Historical Epochs, Antiquities, Religion, Government, Population, Colonies, Army, Navy, Revenue,

* Pinkerton.

Political Importance and Relations, Manners and Customs, Language, Literature, Arts, Universities, Cities and Towns, Roads, Inland Navigation, Manufactures, and Commerce. In short, it will comprehend all that information respecting the present state of each country, which would be useful to the historian, who, at some future period, might be employed in writing its history. This head includes all the articles contained in the three first divisions of Pinkerton.

Natural geography will comprise Climate and Seasons, Face of the Country, Soil and Agriculture, Islands, Seas, Bays, Sounds, Swamps, Lakes, Rivers, Mountains, Forests, Botany, Zoology, Mineralogy, Mineral Waters, and Natural Curiosities. This is the same with the fourth division of Pinkerton, and will convey that information which is interesting to the NATURALIST, in the most extensive use of that word.

The first will comprehend those articles, which are dependent on the instrumentality of man, for their existence or character ; while those, which owe either their character or existence immediately to the AUTHOR OF NATURE, will be classed under the second. Those, of course, which are unsettled and variable in their character, will be included under the first ; while the second will comprise those which are fixed and permanent.

One exception must be made to these remarks. The *Agriculture* of a country is usually more the result of moral, than of natural causes. But, as it would be extremely difficult to describe it without first giving an account of the soil, they are both made to form one article under natural geography. Perhaps it may be thought that the articles *Extent* and *Boundaries* are another deviation from the proposed plan. But the bounds and extent of countries, through every period of time, have depended, with scarcely an exception, on the power and caprice of man.

UNIVERSAL GEOGRAPHY.

AMERICA.

EXTENT, BOUNDARIES, DIVISIONS, ORIGINAL POPULATION, HISTORY OF DISCOVERIES, RELIGIONS, GOVERNMENTS, POPULATION, CITIES, CLIMATES AND SEASONS, FACE OF THE COUNTRY, SEAS, BAYS, AND GULFS, ISLANDS, LAKES, RIVERS, POINTS OF COMMUNICATION BETWEEN THE TWO OCEANS, MOUNTAINS.

Extent.] WE cannot speak with certainty as to the extent of America, because its northern limit has never been ascertained. If, as is probable, Greenland is a part of the continent, it passes through 138 degrees of latitude, and its whole length is 9591 miles. Its greatest breadth, from the extremity of the promontory of Alaska, to the easternmost point of Labrador, is 4570 miles; while its least breadth, across the Isthmus of Darien, is only 34 miles. The average breadth is about 1500 miles. The greatest breadth of South-America, from cape Blanco, on the west, to cape St. Roque, on the east, is 3320 miles. America extends from cape Horn, in lat. 56 S. to lat. 80° N; and from lon. 35° to 168° W. from London. It contains, exclusive of its islands, upwards of 14,000,000 square miles.

Boundaries.] America has the Atlantic on the east, the Pacific on the west, and the Northern or Frozen ocean on the north. On the south, the continent is separated from the island of Terra del Fuego, by the straits of Magalhaens, or, as it is commonly called, Magellan.

Divisions.] We shall consider this immense continent under the three great divisions pointed out by nature, North-America, the West-Indies, and South-America.

Original Population.] Without detailing the numerous hypotheses respecting the sources of the original population of America, with which philosophers have amused themselves and man-

kind, we shall state, in a few words, the result of our own inquiries on this subject, together with the facts from which this result is formed.

I. The Greenlanders and Esquimaux were emigrants from the N. W. shores of Europe. A colony of Norwegians was planted in Iceland in 874. Greenland was settled by Eric Rufus, a young Norwegian, in 982; and before the eleventh century, churches were founded and a bishopric erected at Garde, the capital of the settlement. Soon after this, Bairn, an Icelandic navigator, by accident discovered land to the west of Greenland. This land received the name of *Vinland*. It was settled by a colony of Norwegians in 1002, and from the description given of its situation and productions, must have been either Labrador or Newfoundland.* *Vinland* was west of Greenland, and not very far to the south of it. It also produced vines spontaneously. Its situation corresponds with both Labrador and Newfoundland. Its productions correspond also with those of the former country, if not with the latter; for Mr. Ellis, in his "Voyage to Hudson's Bay," informs us, that the vine grows spontaneously in Labrador: and compares the fruit of it to the currants of the Levant. Several Moravian missionaries, prompted by a zeal for propagating Christianity, have settled in Greenland. From them we learn, that the Esquimaux perfectly resemble the Greenlanders in their aspect, dress, and mode of living; that the natives of the two countries have intercourse with one another; that some sailors, who had acquired the knowledge of a few Greenlandish words, reported, that these were understood by the Esquimaux; that, at length, a Moravian missionary, well acquainted with the language of Greenland, having visited the country of the Esquimaux, found, to his astonishment, that they spoke the same language with the Greenlanders; that there was abundant evidence of their being of the same race, and that he was accordingly received and entertained by them as a friend and brother.† These facts prove the settlement of Greenland by an Icelandic colony, and the consanguinity of the Greenlanders and Esquimaux.

The enterprise, skill in navigation, and habits of roving, possessed by the early navigators, render it highly probable also, that, at some period more remote than the 10th century, they had pursued the same route to Greenland, and planted colonies there. Their descendants, the Greenlanders and Esquimaux, retaining somewhat of the enterprise of their ancestors, have constantly preserved a communication with each other, by crossing and recrossing Davis's strait, which separates Greenland from Labrador, and which in several places is of no great width.

II. The other tribes of North-America, and all the nations of South-America, come from the N. E. coast of Asia, across Behring's straits. The distance from East cape to cape Prince of Wales, is 48 miles. Several islands lie in the straits. In the

* Mallet's Northern Antiquities. † Crantz's Hist. of Greenland, p. 261.

winter the passage is frozen. In the summer the natives continually cross, in canoes, from one coast to the other. Coxe, in his *Russian Discoveries*, mentions, that several Kamtschadale vessels, in 1745, were driven out to sea, and forced, by stress of weather, to take shelter among the Aleutian islands, a distance of several hundred miles. Captain Cook, in one of his voyages, found some natives of one of the islands in the Pacific ocean, out at sea, in their war canoes, 600 miles from home. The distance of the two continents could not therefore have been any objection.

The complexion of the Tartars of Asia is the same with that of the Aborigines of America; and the Indians of the western coast have, in common with the Kamtschadales, little eyes, small noses, high cheek bones, and broad faces. They resemble each other, also, in their manner of living; in their mode of emigrating by tribes; in the custom of scalping their enemies, and of marching in what is called *Indian file*; in tattooing their faces with charcoal; in making canoes of birch bark distended over piles of wood, and nicely sewed together; in using paddles, broad at both ends; in burying along with their dead the articles, which they most valued; and in covering their corpses with mounds of earth and piles of stones.

The Araucanians, the Peruvians, the Mexicans, the Moheekaneews, the Iroquois, and the Chipewyans, all had traditions of their ancestors having come from the west, or north-west. This harmony of their traditions could not have existed, if they had not been true.

These various nations of America undoubtedly emigrated at different periods, and always by tribes, more or less numerous, and possessed of very different degrees of civilization.

Native Tribes.] The principal nations and tribes, which occupied the immense territories of the western continent, beginning at the south, were the Araucanians, the Peruvians, the Caraibes, the Mexicans, the Californians, the Sioux, the Moheekaneews, the Iroquois, the Knisteneaux, the Chipewyans, and the Esquimaux.

The Indians of Chili and Patagonia all spoke one language. We call them **ARAUCANIANS**, after the name of their most powerful tribe. They were more civilized than most of the Tartars. They will be particularly described under the article Chili. It is sufficient to remark here, that they are at this day, a powerful, compact, independent republic.*

THE PERUVIANS were farther advanced in civilization, when America was discovered, than the European Russians, in the time of Peter the Great. We shall defer our account of them to the article Peru.

THE CARAIBES inhabited the West-Indian Islands and the shores of Guiana and Caraccas. A particular account of these, also, will be given hereafter.

* Molina.

THE MEXICANS constituted a powerful empire. They were still farther advanced in civilization than the Peruvians. See a further account of them under the article Mexico.

THE CALIFORNIANS were much less civilized. They were divided into many petty tribes. They will be described under the head of California.

The country lying west of the Mississippi and north of New-Mexico, as far as the parallel of 52° N. now included in the United States, was inhabited by many independent tribes, whom, for want of a better name, we call THE SIOUX, after the name of the most numerous tribe. These will be described in their place.

THE MOHEKANEES* inhabited the greater part of the United States, and probably New-Brunswick and Nova-Scotia. Of many of their tribes we have authentic accounts. Their present number is small.

THE IROQUOIS, or, as they are commonly called, the Six Nations, inhabited the northern and western parts of the state of New-York. The remains of these nations will be noticed in our account of New-York.

THE KNISTENEAX still occupy a vast extent of country. Their language is the same with that of the people, who inhabit the coast of British America, on the Atlantic, with the exception of the Esquimaux; and continues along the coast of Labrador and gulf and banks of St. Lawrence, to Montreal. The line then follows the river Utawas, to its source; and continues thence nearly west along the highlands, which divide the waters of lake Superior and Hudson's Bay. It then proceeds, till it strikes Winnipeg river, and following it through lake Winnipeg, to the mouth of Saskatchewan, ascends that river to Fort George; when the line, striking by the head of Beaver river to Elk river, runs down that river to the Lake of the Hills. The whole of the tract between this line and Hudson's bay and straits, except that of the Esquimaux, in the latter, is occupied by the Knisteneaux. Some of them indeed have penetrated farther west and south, to the Red river of lake Winnipeg, and the south branch of the Saskatchewan.

The Knisteneaux are of a moderate stature, well proportioned, and very active; of a copper complexion, and black hair.† Their eyes are black, keen, and penetrating; their countenances open and agreeable. They generally pull out their beards by the roots, and paint their faces with vermilion. Their dress consists of tight leggings, which reach near the hip; a belt of leather a foot wide, and five feet long, tied round the waist; a close vest or shirt reaching down to the belt; and a cap for the head, made of fur, ornamented with the bush of the animal, and the feathers of birds. A kind of robe, shaped like a blanket, is occasionally thrown over the whole, and answers both night and day. These articles, with the addition of shoes and mittens, constitute the variety of their ap-

* Dr Dwight's Manuscript observations.

† These are common to all the natives of North-America.

parel. Their dress is profusely ornamented with fringe and tassels, moose deer hair, and porcupine quills. The teeth, horns, and claws of various animals are often suspended from the neck. Their dress is made by the women. The female dress differs from that of the men, in having the vest pass under the belt, and reaching below the knee. The Knisteneaux women are very neat and comely.

The tribe is naturally mild and affable, just in their dealings, generous, hospitable, good-natured, and indulgent to their children. Chastity and fidelity are not held by them in high estimation; for a temporary interchange of wives is not uncommon, and the offer of their persons is considered as a necessary part of the hospitality due to strangers. When a man loves his wife, it is considered his duty to marry her sister, if she has one. Incest and bestiality are common among them; and, like most other savages, they are strongly attached to spirituous liquors. The profession of the men is war and hunting. They also spear fish, but the women manage the nets. Their females, like those of the other Indians, are in a state of dependence and servitude. Their life is an uninterrupted succession of toil and pain. They are so sensible of their situation, that they frequently destroy their female children, to save them from the miseries, which they themselves have suffered. These Indians travel in summer in canoes; in winter, when the waters are frozen, in sledges, drawn by dogs. They are fond of war, and engage in it from the love of glory, and from the desire of revenge. War is always determined on in a public council of the whole tribe. They begin every council, and every ceremonial and feast, with smoking. This is the commencement even of their funerals, and they always terminate with a feast, and an eulogium. In the spring and autumn, they have public, solemn, religious ceremonies, at which they sacrifice white dogs, and make large offerings of their property to the Being, whom they call by a name signifying the *Great Master of Life*. The scene of these ceremonies is always the bank of a river or lake, in the most conspicuous situation. They know the virtues of many herbs and simples. The dung of animals newly killed is used as a remedy for sprains, and a sharp flint serves them for a lancet. They are fond, also, of European medicines, though ignorant of their application. The Knisteneaux resemble the Mohekanecws in their mode of living and their language, and undoubtedly had a common origin.* There is good reason to believe also, that they were originally the same with the Sioux, or the Indians of Louisiana.

THE CHIPKWAYANS are numerous. They consider the country between lat. 60° and 65° N. and between lon. 100° and 110° W. as their home. Their language is copious, and difficult to be attained; and is spoken in many dialects by the tribes, who wander over the immense tract of country, which begins at Fort Churchill, and runs along the line of separation between them and the

* The Algonquins are a tribe of Knisteneaux.

Knisteneaux, up the Mississippi to the isle à la Grosse ; passing on through Buffaloe lake, River lake, and Portage La Loche ; from thence it proceeds by Elk river to the lake of the Hills, and goes distinctly west to Peace river, and up that river to its source ; thence down the Columbia to lat. 52, 24, lon. 122, 54, where they have the Atnah or Chin nation for their neighbors ; thence due west to the sea coast. Between them and the Frozen ocean lie the Esquimaux, and on the North-West Coast is a nation different from both.

The Chipewyans have confused traditions of the creation, the fall, the longevity of the antediluvians, the deluge ; and of their nation coming many ages since from another country, inhabited by very wicked people, across a great lake, which was narrow, shallow, and full of islands, where they suffered great misery ; it being always winter, with ice and deep snow. They believe in the transmigration of the soul, and in a future state of rewards and punishments. They are sober, timorous, inclined to dishonesty, but, what is singular, not addicted to ardent spirits. Their complexions are swarthy and their features coarse. Their country is generally barren, and covered with moss. They have not been in America so long as the Knisteneaux. Their progress has been only eastward ; while that of the Knisteneaux for some time has been westward.*

THE ESQUIMAUX possess the sea coast from the Atlantic through Hudson's straits and bay, as far as M'Kenzie's river, and probably farther. They never quit the coast ; and agree in appearance, manners, language and habits, with the inhabitants of Greenland. Their progress has been only westward.† We shall describe them hereafter.

It cannot be doubted, that there were many other small tribes, unconnected with these, which have not been mentioned. All that can be done, in this case, is to give a general geographical outline of the principal *nations*. It will be observed that we have said nothing of the aborigines of western Terra Firma, of Brazil, and of Paraguay. This deficiency is owing to a very sufficient cause, the want of information respecting them. If, with Clavigero, we admit that the equinoctial parts of Africa and America were once united, the aborigines of these parts of America may have come to this continent by that route. But this is mere conjecture.

History of Discoveries.] The discovery of America is now universally ascribed to Christopher Columbus, a native of Genoa ; though many attempts have been made to deprive him of the glory. The Norwegians, the Welsh and the Germans, each in their turn, have stated their respective pretensions.

The Norwegians certainly settled Greenland, as early as 982 ; and, in 1002, planted a colony in Labrador or Newfoundland.

* For this account of the two Indian nations last described, the author is indebted to M'Kenzie, I. 113—158.

† M'Kenzie, II. 503.

They do not, however, appear, during the existence of this colony, to have considered the country as any thing more than an island ; and, in a moderate period afterwards, the colony and the country seem to have been forgotten.

The pretensions of the Welsh have a much slighter foundation. In the 12th century, a dispute having arisen among the sons of Owen Gwyneth, king of North-Wales, about the succession to the crown, Madoc, one of their number, went to sea in search of a more peaceful settlement. He steered due west, leaving Iceland to the north, and arrived in an unknown country, which appeared to him desirable ; he returned to Wales, and carried thither several of his countrymen. This, it is said, took place about 1170. He and his colony have not been heard of since.

The Germans ascribe the honor of the discovery to Martin Behaim, their countryman. Behaim was an enterprising navigator, and the most complete geographer of his time. But a globe, which he constructed in 1492, which afterwards fell into the hands of Magellan, furnished conclusive evidence, that he had never made the discovery himself, and that he had never heard of its being made by others. Beyond the Cape Verd islands he placed the island of *Antillia* ; beyond this, and near the equator, the island of St. Brendan ; and, about as far from this, as this was from the Cape Verd islands, he placed *Zihangu* or Japan. Hence Columbus was led to suppose, when he discovered the first land, that he was in the neighborhood of Japan. The following are the principal epochs of discovery.

874. Iceland, which is really an American island, was peopled by a colony of Norwegians commanded by Ingulph.

982. Greenland was settled by Eric Rufus, a young Norwegian ; and, before the eleventh century, churches were built and a bishopric erected at Garde, the capital.

1002. Vineland, which is probably Labrador, possibly Newfoundland, was discovered by Bairn, an Icelander. A small colony of Norwegians was planted there. The fate of this colony has never been fully ascertained.

1492. Christopher Colon, or, as he is commonly called, Christopher Columbus, a native of Genoa, set sail from Palos in Spain, under the auspices of Ferdinand and Isabella, the sovereigns of Castile and Arragon. For at least 20 years before, he had been fully satisfied of the existence of unknown regions in the west ; and, during the greater part of that time, had been endeavoring to secure the patronage of some of the principal powers of Europe. From the love, which he bore his native country, he first laid his proposals before the senate of Genoa, and offered to sail under the banners of the republic. The senate rejected his offers as chimerical. He then submitted his plan to the Portuguese, who made a perfidious, but unsuccessful, attempt to anticipate him in the glory of the enterprise. In 1484, he made an unsuccessful application to Henry VII. of England ; and, during the eight following years, experienced a series of mortifying disappointments,

at the court of Ferdinand, which would have broken down the resolution of any other man. Columbus himself was almost in despair. He withdrew from court, and was preparing to make one more desperate attempt on the generosity and the ambition of the English monarch ; when he was recalled to Castile by the generous Isabella, and employed, on his own terms, in her service. The poverty of her court prevented her from equipping an armament suitable to her own dignity, and the importance of the enterprise. It consisted of three vessels ; the largest, the *Santa Maria*, a ship of no considerable burden, was commanded by Columbus as admiral. Martin Pinzon was captain of the second, called the *Pinta*. The third, the *Nigna*, was under the command of Vincent Yanez Pinzon. The squadron was victualled for 12 months. and had on board 90 men, mosly sailors, together with a few adventurers. The expense of fitting out the expedition was 4000 pounds sterling ; and to raise this sum the queen generously offered to pledge her own jewels.

On the first of October, he was, by his own reckoning, 770 leagues west of the Canaries. His men began to mutiny, and he was forced to promise to return, if land did not appear in three days. Fortunate presages soon arose, such as land-birds, a cane newly cut, a carved piece of wood, and the branch of a tree, with fresh red berries. On the evening of the eleventh of October, he was so confident of being near land, that he ordered the sails to be furled, the ships to lie to, and a strict watch to be kept, lest they should be driven on shore in the night. During this interval of suspense and expectation, no man shut his eyes, all kept on deck, gazing intently towards that quarter, where they expected to discover the land, which had so long been the object of their wishes. A little before midnight, Columbus, from the forecastle of the *Santa Maria*, discovered a light at a distance ; and shortly after, the cry of *land ! land !* resounded from the *Pinta*, the headmost ship. Rodrigo de Triana was the name of the mariner, who was so fortunate as to announce this intelligence to his countrymen. With the dawn of Friday, October 12th. a beautiful isle appeared, two leagues to the north. The crews of all the ships unitedly sang *Te Deum*, with shouts of joy and transports of congratulation. They then threw themselves at the feet of Columbus, and begged him to forgive their incredulity and disobedience.

The island was one of the group called the Bahamas. Columbus named it San Salvador. but it is now better known by the native name of Guanahani, or Cat island. He was the first who landed. His men followed, and, kneeling down, kissed the ground, which they had all so ardently desired to see. They next erected a crucifix, and prostrating themselves before it, returned thanks to God for conducting their voyage to a happy issue. The natives regarded the Spaniards, as the children of the sun ; and the Spaniards were hardly less amazed, in their turn, with the productions and inhabitants of the island.

Columbus soon afterwards discovered Cuba and Hispaniola. After visiting the Azores, on his return, he arrived at Palos on the 15th of March, 1493. In September of this year, Columbus sailed upon his second voyage to America; discovered the islands, Dominica, Marigalante, Guadeloupe, Montserrat, Antigua, Porto Rico, and Jamaica; founded a town in St. Domingo, being the first European settlement in the new world; and returned to Spain in 1496.

1496. The fame of Columbus immediately spread through Europe, and inspired many with the same spirit of enterprise. In the spring of this year, John Cabot, a Venetian, under a commission from Henry VII. sailed from England, discovered the coast of Labrador, and coasted northerly, as far as the 67th degree of latitude.

1497. In company with his son, Sebastian Cabot, he discovered Bonavista, on the N. E. side of Newfoundland; and before his return, traversed the coast from Davis's straits, to cape Florida.

1498. This year Columbus made his third voyage, and, Aug. 1, discovered the CONTINENT, at the mouth of the Oronoco, together with the island of Trinidad. He then returned to Hispaniola; and in October, 1500, was sent back to Spain *in chains* ! !

1500. Pedro Alvarez Cabral, on a voyage to the East-Indies, discovered Brazil.

1502. This year Columbus made his fourth and last voyage. He discovered the bay of Honduras, and coasted thence easterly 200 leagues, as far as the gulf of Darien. During this voyage, he was shipwrecked on the island of Jamaica. He returned to Spain in 1504. On his arrival he received the fatal news of the death of his patroness, Queen Isabella.*

1513. Vasco Nugnez de Balboa, from the mountains of the isthmus, discovered the Pacific ocean. He afterwards waded into it, and took a formal possession of it in the name of the king of Spain.

In the same year John Ponce, a Spanish captain, discovered East-Florida.

1520. Ferdinand Magalhaens, or Magellan, a Portuguese gentleman, in the employ of the court of Castile, discovered the straits of Magellan, and sailed through them into the Pacific ocean. No European before him had ever sailed on its waters. To him it owes its name.

1528. Captain Vitus Behring sailed from Kamtchatka, north-east, as far as lat. 67°, and thus ascertained the separation of America and Asia.

* This illustrious man was afterwards created duke of Veragua. He died of the gout at Valladolid, on the 20th of May, 1506, in the 59th year of his age; and was buried at Seville, with this most honorable inscription.

To Castile and to Leon

Colan gave a new world. .

Some writers assert that the body of Columbus was carried to the West-Indies, and buried in the Cathedral at St. Domingo, in Hispaniola.

1534. James Cartier, in the employ of Francis I. of France, on the day of the festival of St. Lawrence, discovered the gulf and river, which bear that name.

1553. Sir Hugh Willoughby discovered the island of Spitzbergen.

1578. This year Sir Francis Drake, as brave a man as ever sailed in an English ship, coasted along the whole western shore of South-America. In 1579 he discovered California, and took possession of the country under the name of *New-Albion*. He passed thence to the Moluccas or Spice islands, Sept. 29, 1579, and arrived in England, Nov. 3, 1580, after an absence of two years and ten months.

1585. John Davis, an experienced navigator, sailed to the western coast of Greenland, and explored Davis's straits. On another voyage he proceeded as far north, as the island of Disco, and discovered Cumberland's straits.

1607. Henry Hudson explored the eastern coast of Greenland, as far as 82° north.

1609. In a second voyage he discovered Hudson's river, and ascended it, as far as Albany.

1610. This year Hudson made his third voyage, and discovered the straits of Hudson, and the large inland sea, known by the name of Hudson's bay.

1616. Captain Robert Bylat, and William Baffin, went in search of a north-west passage to India. Baffin afterwards published an account of the voyage. According to this account they went far northward of the utmost limits of Davis's voyage, and discovered Horn sound, cape Dudley Diggs, Hackluyt island, sir Thomas Smith's sound, Cary's Islands, Alderman Jones's sound, and sir James Lancaster's sound. He claims, also, to have discovered that the body of water lying between Greenland and America is a bay, and not a strait; and, of course, that Greenland is not an island, but a part of the continent. Little credit, however, is given to his representations, and it is not yet ascertained whether Greenland is a peninsula or an island.

1745. In this year the Aleutian or Fox islands, stretching west from the promontory of Alaska, were discovered by some Kamtchadale voyagers, who were driven by stress of weather near to the American coast.

1772. Mr. Hearne, while exploring the interior of N. America, discovered the Frozen sea, in about 110° W. lon. and in lat. 70° N. Mr. McKenzie, in 1789, discovered it in the same latitude, and in about 135° W. lon.

We close this concise history of *Discoveries*, by the following summary account of

*The attempt to discover a North-West Passage ; and of the successive expeditions to the north polar regions.**

THE idea of a passage to the East Indies, by the North Pole, was suggested, as early as the year 1527, by *Robert Thorne*, merchant of Bristol, as appears from two papers preserved by Hackluyt ; the one addressed to king Henry VIII. the other to Dr. Ley, the king's ambassador to Charles V. Notwithstanding the many good arguments with which these adventures were recommended by Mr. Thorne, and the offer of his own services, it does not appear, that he prevailed so far, as to procure any attempt to be made.

Borne, in his "*Regiment of the Sea*," written about 1577, mentions this as one of the five ways to Cathay, and dwells chiefly on the mildness of climate, which he imagined must be found near the pole, from the constant presence of the sun during the summer.

George Best, the following year, 1578, wrote a very ingenious discourse, with a view to forward the same object ; and, though he had great experience in nautical affairs, he wrote without effect : he could not rouse the attention of the public to the object.

No voyage was actually undertaken to explore the circumpolar seas, till the year 1607, when "*Henry Hudson* was sent forth at the charge of certain worshipful merchants of London, to discover a passage by the North Pole, to Japan and China." He sailed from the Thames on the first of May, 1607, in the ship *Hopewell*, with 10 men and a boy. He fell in with the land to the W. in lat. 73° , on the 21st of June, which he named *Hold-with-Hope*. He proceeded to Spitzbergen, and as far N. as lat. $82^{\circ}, 23'$. He concludes an account of his discoveries in these words : "On the 16th of August I saw land, *stretching far into* 82° , and by the bowing and shewing of the sky, much farther ;" but, owing to the ice, he was prevented from proceeding, and concluded, that there was no passage that way. In consequence of this opinion he was the next year employed to make discoveries in the N. E.

In 1609, a voyage was undertaken by *Jonas Poole*, in the ship *Amity*, under the patronage of the Muscovy Company. This voyage was attended for a while with flattering circumstances, but in the issue nothing was added to former discoveries. Poole was employed a second time, in 1611, but was less fortunate than before.

In 1614, *Baffin* and *Fotherby* undertook this great work, but accomplished very little ; though *Fotherby* made a second attempt. and gave it as his opinion, notwithstanding former failures and present obstacles, that, with perseverance and courage, the object might be attained.

All these voyages having been fitted out by private adventurers, for the double purpose of discovery and present advantage, it might be naturally supposed, that the attention of the navigators would be directed to the last, rather than the first, as being less remote and difficult.

* Taken from Phipps's account of his "voyage toward the North Pole, 1773," and recent documents.

In the year 1773, the *Royal Society* prevailed on the British government to engage in this polar expedition. Two ships, the *Racehorse* and *Carcass*, were accordingly selected and equipped for the express purpose: Captain *Phipps* was appointed to the command, assisted by the most experienced and enterprising naval officers and men. The *Royal Society*, and the *Board of Longitude*, furnished a philosophical and mathematical apparatus, peculiarly necessary in such an undertaking, and Mr. *Israel Lyons* was designated to conduct that department in the expedition, for which his mathematical science peculiarly fitted him.

This expedition sailed from the *Nore* on the 4th of June, 1773, and in 37 days anchored in *Vogel Sang*, lat. $80^{\circ}, 4'$, N. on the N. W. coast of *Spitzbergen*. These vessels however were not able to penetrate any farther N. than lat. $80^{\circ}, 48'$, where they arrived on the 27th of July. Every attempt was made by Capt. Phipps to clear the north of the *Seven Islands*, but in vain. The ice was so abundant and formidable, that he was obliged to return—not, however, till he had braved dangers, which imminently exposed to destruction both his ships.

Notwithstanding all these failures, the hope of future success in this enterprise continued to be cherished. Matter to enliven this hope has been derived from the reports of the *Greenland whalers*, and others, who have witnessed, especially of late, the breaking away of vast masses of ice from the polar regions, by means of which some of these enterprising whalemen have penetrated as high as lat. 82° , and affirm that the *Arctic sea* is navigable even beyond this latitude. These circumstances conspired to kindle in some British navigators a desire yet to gain the glory of discovering the long sought N. W. passage. To effect this purpose four vessels were equipped early in the spring of 1818, viz. the *Alexander* and the *Isabella* for *Davis's straits*, and the *Dorothea* and the *Trent* for the coast of *East-Greenland*. The two first named ships, from the last accounts, Aug. 18, 1818, had advanced to lat. 76° , N. lon. 52° , W. with high hopes of success. Capt. *Muirhead*, in this lat. Aug. 1817, experienced a great swell, and the sea N. was without ice. The *Dorothea* and *Trent*, in their course, penetrated as high as lat. $80^{\circ}, 30'$, lon. 12° , E. and there met a solid body of ice. They attempted to proceed to the westward, but, as in the case of Capt. Phipps in the *Racehorse*, in 1773, they found an impenetrable barrier in that course, and returned. It yet remains to be determined whether *Greenland* be a part of the old, or the new continent, or an island. Also, whether there be any passage in a N. W. direction by the pole to *Behring's Straits*.

In the opinion of most men of science, all hope of sailing to the pole by *Spitzbergen* is now at an end. Mr. *Scoresby*, however, has lately suggested a new and bold plan of proceeding to the pole from *Spitzbergen* over the immense fields of ice. For this purpose he proposes to adopt the mode which the *Russian hunters* have often employed with such success in exploring the *Frozen Sea*, from *Nova Zembla* to the shores of *Kamtchatka*. He proposes to pass the winter in *Spitzbergen*, and, starting in the spring with sledges, drawn by dogs, to pursue

a direct journey of 6 or 700 miles to the pole. This plan Mr. S. may easily form by the fireside, in a comfortable parlor in England, but the attempt to accomplish it, will be extremely hazardous, probably unsuccessful, and, at best, a mere gratification of curiosity.

Religions.] The religions which exist in America are the Jewish, the Christian, and the Pagan.

A few Jews are scattered over the large towns of the United States, Mexico, the West-Indies, and S. America.

Of Christians, Roman Catholics are most numerous in America. They compose the chief European population of Canada, and nearly the whole of that of Brazil and Spanish America. They are found, also, in considerable numbers in Maryland; and in several of the capital towns in other parts of the United States they have congregations.

Almost all the inhabitants of the United States are Protestants, as are those of Nova-Scotia, New-Brunswick, New-Britain, Greenland, and the islands in the West-Indies, which were settled by the English.

The native tribes of N America, a few converts to Christianity excepted, are Pagans; as are the nations in Amazonia and Patagonia, as well as most of the tribes in the conquered provinces of S. America.

Governments.] The United States are a republic; Greenland and British America are provinces; Brazil is now an independent kingdom; Spanish America is struggling to be free; Araucania, in Chili, is a republic; a part of the island of St. Domingo is a kingdom, and part a republic; and the Aborigines, where they are unsubdued, with the exception of the Araucanians of Chili, constitute numerous independent petty kingdoms.

Population.] On this subject we have scarcely any thing to guide us but conjecture. That of the United States is known. That of British America can be nearly ascertained. That of Spanish America and Greenland can be guessed at; while at that of aboriginal America one would hardly venture to guess. From the best information which we have been able to obtain, we are however led to conclude, that the whole population does not exceed 35,000,000. Nor do we believe that it falls greatly short of that number.

Cities.] The cities of America are all, comparatively, of a recent date, and cannot vie with those of the second order in the old world. They are most of them, however, rapidly increasing, and, in the progress of a century, it is not unlikely, that several of them will be mentioned among the great cities of the earth. The largest are Mexico, in Old Mexico, Rio Janeiro, in Brazil, the Havanna, in Cuba, Philadelphia, New-York, and New-Orleans, in the United States, Quebec, in Canada, Buenos Ayres, in Paraguay, and Lima, in Peru.

Climate and Seasons.] The variety of climate and seasons in America is much greater than in either of the other three quarters of the globe. The American continent extends through the torrid and northern temperate zones; through a great part of the southern temperate, and a considerable proportion of the northern frigid zones.

The winters of N. America are colder, and the summers hotter, than those of Europe, in the same latitudes. They bear a much nearer affinity to those of eastern Asia. The weather in both seasons is very variable. The equatorial regions of America are never subjected to the intense heat, which prevails in the same regions in Africa. The complexion of the aborigines of Peru and Brazil is red, and is but a few shades darker than that of the Indians of New-England. This milder temperature is owing to the vicinity of the Andes. The temperate regions of S. America are colder than the corresponding latitudes of N. America. It is also said, that the N. W. Coast of America is much warmer than the N. E. in the same parallels.

Face of the Country.] America contains no immense deserts similar to the Sahara of Africa, or the extensive sandy plains of central Asia. Its surface, without an exception worthy of being mentioned here, is mountainous, hilly, or uneven.

Seas, Bays, and Gulfs] Hudson's sea (commonly called Hudson's bay) is considered as commencing at cape Chidley and cape Walsingham, that is, in lon. 65° W. it reaches 30° of longitude; which, in lat. 60° , will be about 1050 miles, which is its breadth. It lies between 51° and 69° N. lat. Its length of course is 1250 miles. A southern projection of this sea is called James's bay. Its shores, from Moose river, in James's bay, to cape Churchill, are generally low and shallow, with a muddy or sandy bottom; and the lands are wooded with pines, birch, larch, and willows. From cape Churchill to cape Walsingham, the coasts are all high and rocky to the very sea, and woodless, except the mouths of Pockerekesko and Seal rivers. Nor are there any trees for a great distance inland. The whole western shore is faced with islands, at some distance from the land. On the E. of this bay is *East Main*, which may be considered as a W. division of Labrador or New Britain. The coast here, also, is high, rocky, and lined with islands; and the land barren beyond the efforts of cultivation. In this bay the beluga, or white whale, is taken in great numbers, in the month of June. Large sturgeons are also caught near Albany. The bay, however, does not abound with fish. Shell-fish, the common muscle excepted, are very rare. Chesterfield inlet is a singular strait, stretching far to the W. from the W. end of the bay, but terminates in a magnificent lake of fresh water, communicating with this sea, by, what may be called, a broad river; the adjacent land is level, rich in pasture, and abounding with deer. It is not ascertained whether Hudson's bay opens into the Arctic ocean. If it does, the land lying north and east of it is an immense island, much larger than any on the American coast. On the S. of this bay is New South Wales; on the W. New North Wales.

Caribbean Sea. The great mass of waters reaching from the peninsula of Yucatan, on the west, to the windward islands on the east, and having Porto Rico, Hispaniola, and Cuba, on the north, is usually called the Caribbean sea. It extends from 61° to 87° W. lon. and from 9° to 21° N. lat. The bay of Honduras makes its western extremity. S. of this bay lies the gulf of Darien.

Baffin's Bay. The body of water, which is called Baffin's bay, lies between Greenland on the east, and Labrador and the countries north of Hudson's bay on the west. It is not yet ascertained whether it is a bay or a strait. It is a very large bay, extending not less than 1600 miles from N. to S. and near its northern extremity not less than 600 from E. to W. N. of Sanderson's Hope, in Greenland, about lat. 75 N. this bay is considered doubtful. Its width, near the southern extremity, in that part called Davis's straits, is not more than 350 miles. It opens into the Atlantic between cape Farewell N. and cape Charles E.

Gulf of Mexico. This celebrated gulf has East Florida on the N. E. West Florida and Louisiana on the N. and Mexico on the W. and S. It extends from 18° to 30° N. and from 83° to 98° W. It communicates with the Atlantic and the Caribbean sea between the S. point of East Florida, and the N. E. point of Honduras.

Gulf of St. Lawrence. The gulf of St. Lawrence has Labrador on the N. Newfoundland and cape Breton E. and Nova-Scotia and Canada on the S. and W. It extends from about 46° to 52° N. lat. It has three communications with the ocean, one between Nova-Scotia and cape Breton, called the gut of Canso; a second between cape Breton and Newfoundland; a third between Newfoundland and Labrador, called the straits of Belleisle. The depth of this gulf is 240 miles, and its width at the mouth, 90 miles. It embraces the island of Anticosti.

Gulf of California. This is a bay lying between the peninsula of California and Mexico. Its general course is from N. W. to S. E. It lies between lat. 20, 20, and 32, 30, N. and between lon. 105 and 114 E. Its greatest length, from cape Corientes to the mouth of the Colorado, is not less than 900 miles. Its average breadth is about 200 miles. The western coast is lined with numberless islands throughout its whole extent. The river Colorado, which empties at the head of the gulf, is the largest in Mexico, and not improbably the largest, except the Columbia, which empties from America into the Pacific ocean. The gulf communicates with this ocean between cape St. Lucas, the southern extremity of the peninsula, in lat. 22, 48, and cape Corientes on the Mexican coast, in lat. 20, 20.*

Gulf Stream. The name of this stream, and its connexion with the gulf of Mexico, render it proper to describe it in this place. It is a remarkable current, occasioned by the general trade winds. Commencing at the equator, near the coast of Africa, by a westward course it crosses the Atlantic, and running along the shores of Guiana and Terra Firma, passes through the Caribbean sea, and coasts the gulf of Mexico. It then issues from the gulf, between cape Florida and the island of Cuba, and traversing the coasts of East Florida, the United States, New-Brunswick, and Nova-Scotia, proceeds to the banks of Newfoundland. There it turns to the S. E.; and, passing the Azores, it makes for the coast of Africa, near which, at the equator, it commences anew its former circuit. It is easily

* Venegas, Hist. California. Section II.

distinguishable from the other waters of the ocean by the gulf weed, with which it is every where interspersed ; by being 8 or 10 degrees warmer than the surrounding sea ; and by not sparkling in the night. In high latitudes, also, it is always covered with a thick fog. It passes about 75 miles from the shores of the southern states. The distance increases as you go northward. Its breadth is about 40 or 50 miles, widening to the north. Its common rapidity is 3 miles an hour, and it takes about 20 days for it to run from cape Florida to Newfoundland. Northeast and east winds narrow the stream, render it more rapid, and drive it nearer the coast. Northwest and west winds have a contrary effect. Skilful navigators, in their voyages from Europe to New-England, pass the banks of Newfoundland in 44° or 45° N. lat. and sail thence between the northwestern limit of the gulf stream, and the shoals and banks of Sable Island, George's Bank, and Nantucket.

Islands.] The principal islands are Spitzbergen, Iceland, Terra del Fuego, Cuba, Hispaniola, and Newfoundland. The two first have commonly been considered as European isles ; but they are much nearer to Greenland than to Norway. They will all be particularly described hereafter.

Lakes.] There is nothing in the other parts of the globe, which bears any resemblance to the immense chain of lakes in N. America. Europe has its Ladoga ; Asia its Caspian, Aral, and Baikal ; and S. America its Xarayes : while N. America contains Slave lake, lakes Winnipic, Superior, Michigan, Huron, Erie, Ontario, and Nicaragua ; the least of which is equal to any of the eastern continent, except the Caspian : it has beside a very great number of inferior size.

The northern lakes of this continent may be considered under three great divisions. 1. Those whose waters are discharged into the Arctic ocean. 2. Those whose waters pass into the Hudson's bay. 3. Those which are emptied into the gulf of St. Lawrence.

1. Lakes, whose waters are emptied into the Arctic ocean. The principal southern source of these waters is Elk river, sometimes called Athabasca river ; which, rising in lat. 54° , lon. 117° , pursues a northeasterly course of about 180 miles, when it receives the waters of lesser Slave lake by means of lesser Slave river ; and, after running eastwardly about 80 miles, northwardly about 110, and eastwardly again about 40, receives the waters of Pelican river, a considerable stream from the N. E. near Portage La Loche ; which is the height of land between the river Missinipi, and Slave lake. Thence it runs due north 140 miles, and empties into the southwestern end of the

Lake of the Hills. This lake, according to M^r Kenzie, reaches from 106° to $111, 30$, W. and from $58, 40$, to $59, 40$, N. If this account be correct, it is about 180 miles long, but every where very narrow. Fort Chipewyan, the great rendezvous of the western traders, lies near its southwestern extremity, in lat. $58, 40$, N. lon. $110, 30$, W. Elk river issues from the northwestern end of the lake, and, after a course of about 20 miles due north, unites with a much larger stream, called the Unjigah or Peace river. This is the principal source of the waters of the Slave lake. It rises among the Rocky mountains in a

small lake, in lat. 54, 24, N. lon. 121° W. near the height of land that separates the waters which flow into the Arctic ocean, from those which are discharged, by Columbia river, into the Pacific. This small lake is two miles in length, E. by S. ; and is only 817 yards distant from another lake of the same size, which is the source of Bad river, one of the branches of the river Columbia, which empties into the Pacific ocean, in latitude 46° N. longitude 124° W. Peace river runs nearly N. a distance of 180 miles from its source, where it is 800 yards broad. Its course is then eastward, 280 miles to the Forks, where it receives the East Branch, which has not yet been explored. For about 320 miles from its source, it runs through the Rocky mountains, having them most of the way close to its banks. From the Forks, to lat. 57, 40, a little above what is called the **NEW ESTABLISHMENT**, its course is northerly for 140 miles, and afterwards northeasterly for about 250 ; when it unites with Elk river, in lat. 59° lon. 111, 20. Its current here is very rapid, and its width upwards of a mile. The united stream takes the name of Slave river, and runs a course of 220 miles, a little west of north, when it empties into the southern side near the western end of

Slave Lake. According to M'Kenzie's map, this lake lies between lat. 60, 30, and 63° N. and between lon. 110° and 119° W. Its length, from E. N. E. to W. S. W. is about 270 miles, and its circumference, owing to its irregular shape, not less than 1000 or 1100 miles. Its waters are discharged at the northwest end, through M'Kenzie's river, in lat. 61, 20, lon. 118, 30. This river, after running 170 miles in a N. W. direction, and 193 miles due north, receives the waters of the Great Bear lake (a lake about 70 or 80 miles in length) through the Great Bear river. Its general course thence is N. W. by N. 422 miles ; when it empties into the Arctic ocean, in lat. 70°, lon. 135°. The distance of the head of Peace river, in lat. 54, 24, N. and lon. 121° W. from its junction with Elk river in 59° N. and 111, 20, W. is 850 miles. The length of Slave river is 220 miles ; the distance of its mouth from the mouth of Slave lake, is 180 miles ; and the length of M'Kenzie's river, 785 miles ; making a total of 2035 miles.*

2. Lakes, whose waters pass into Hudson's bay. There are two rivers, through which these waters are discharged ; the Missinipi or Churchill river, which empties at Churchill fort ; and Nelson's river, which empties at York fort.

Lake la Loche, the length of which is 20 miles, is the source of the first. It lies near Portage la Loche, and is discharged by a river of the same name ; which, after a course of 24 miles, empties into the northwest end of Buffalo lake, in lat. 56, 8. This lake is 36 miles long, and from 6 to 12 broad, in a northwest direction. The distance between this and Black Bear lake is a little more than 200 miles, following the meanderings of the waters. There are no less than 9 lakes in this distance, the chief of which is lake La Crosse, about 35 miles long and 12 broad, which receives the waters of Beaver river from the south. Black Bear lake is about

* These distances and dimensions are obtained from M'Kenzie's Travels

45 miles in length. After leaving this lake, the river pursues an easterly course, about 115 miles, to Portage de Traite; whence it runs northeast, and empties into Hudson's bay, in lat. 59°. This portage separates the waters of the Missinipi from those which flow into lake Winnipeg.

The principal western source of these last mentioned waters is the river Saskatchewan, the southern and longest branch of which rises in the Rocky mountains, in lat. 50°; lon. 115°; and the northern very near the source of Elk river. The Saskatchewan, after running a course, according to M'Kenzie's map, of about 500 miles, receives, in Pine Island lake, the waters of a river, which rises near Portage de Traite, and runs in a southeasterly direction 150 miles, through Beaver lake and several others of smaller extent. The united stream, retaining the name of Saskatchewan, runs through Cedar lake, 34 miles long, and 12 broad, and, after a course of 90 miles, in lat. 53, 15, falls into the western side of

Lake Winnipeg, near the northern extremity. The course of this lake is about W. N. W. and S. S. E. Its S. end is in lat. 50°, 37, lon. between 96° and 98° W. Its N. end is in lat. 54°, 30. Its length is at least 280 miles, and its surface larger than any of the American lakes, except lake Superior. Its northern banks are of black and grey rock; its southern a low, level country, occasionally interrupted with a ridge or bank of limestone, lying in strata, and rising to the perpendicular height of from 20 to 40 feet. Where the banks are low, it is evident that the waters are withdrawn, and never rise to those heights, which were formerly washed by them. At a small distance west of lake Winnipeg, and parallel with it, lie two long and narrow lakes, Red Deer lake, and lake Manitoba, whose united length, on M'Kenzie's map, is not much less than that of lake Winnipeg. The first receives the waters of Red Deer and Swan rivers from the west, and empties them, by a narrow outlet of 9 miles in length, into the second; which, at its southern extremity, receives Stone Indian river, and empties all its waters into the Winnipeg, through Dauphin river, at the head of St. Martyn's bay, in lat. 52, 15, north. Lake Winnipeg, from the south, receives Red river, which rises very near the source of the Missouri. At its southeastern corner Winnipeg river flows into it, discharging the waters of Rainy lake, and the lake of the Woods. This river rises near the Grand Portage, about 9 miles from the northwest shore of lake Superior; and, after a course of 220 miles due west, enters Rainy lake. Through this lake it runs 45 miles, whence it flows 120 miles, and enters the lake of the Woods. This lake is nearly circular, and its diameter is about 75 miles. Its course thence is northwest, 230 miles; when it empties into lake Winnipeg, in lat 50, 37. Thus the whole distance from the Grand Portage to lake Winnipeg, is about 690 miles, and, the width of the portage being added, makes it 700. In this distance, owing to rapids and other obstructions, there are not less than 40 portages or carrying places. The outlet of lake Winnipeg is Nelson's river, which begins at the north-

ern end of the lake, and pursues a northeasterly course, till it empties into Hudson's bay, at York fort, in lat. 52, 30. Its length is probably not less than 500 miles.*

3. Lakes, which empty into the gulf of St. Lawrence. The most distant source of these waters is the river St. Louis, which rises near the head of the Mississippi, and empties into the southwest extremity of

Lake Superior. This is the largest body of fresh water on the globe. It lies between lat. 46°, 31', and 49°, N. and between lon. 85° and 92°, 10', W. Its length is 400 miles, and its circumference, including its various bays, is 1600. On its south side is a remarkable promontory, 60 miles in length, called point Shagoimago. Along its north shore is the safest navigation, as it is a continued embankment of rock from 300 to 1500 feet in height. Here are numerous coves and sandy bays, convenient for landing, frequently sheltered by islands from the swell of the lake, which is often no very faint imitation of the swell of the ocean. The soil on the eastern shore is rocky and barren, yielding only stunted trees, brambles, and fruits of humble growth. The south side of the lake, east of point Shagoimago, is almost a continual straight line of sandy beach, interspersed with rocky precipices of limestone, sometimes rising to an hundred feet in height. There is not a bay or a creek in this whole distance. The embankments, from that point westward, are in general of strong clay, mixed with stones, which renders navigation irksome and dangerous. Lake Superior receives from the northeast the waters of Michipocoten river, which rises near the source of Moose river, a stream falling into James's bay at Moose fort; and, from the northwest, the waters of lake St. Ann, through Nipegon river, or Redstone, which rises near a branch of the Albany, a river, which falls into James's bay, at fort Albany. East of this river, the shore of the lake is flat.

There are many islands in this lake; two of them, Philip and Royal isles, have each land enough, if proper for cultivation, to form a considerable province. Isle Royal, near the northwest coast of the lake, is not less than 100 miles long, and in many places 40 broad. The natives suppose these islands are the residence of the Great Spirit. Measures have lately been taken, by an association formed for the purpose, to survey, and, if practicable, to settle and improve these islands, and others which belong to the United States.

Not far from the Nipegon is a small river, that, just before it enters the lake, has a perpendicular fall from the top of a mountain, of 600 feet.† It is very narrow, and appears at a distance like a white garter suspended in the air. There are upwards of 30 other rivers, which empty into this lake, some of which are of a considerable size. About 100 miles west of cape Shagoimago, a considerable river falls into the lake, the head of which is composed of a great assemblage of small streams. This river is remarkable for the abundance of virgin copper that is found on and near its banks. Many small islands, particularly on the eastern shores, abound with copper ore lying in

* M'Kenzie.

† Carver.

beds, with the appearance of copperas. This metal might be easily made a very advantageous article of commerce. This lake abounds with fish, particularly trout and sturgeon; the former weigh from 12 to 50 pounds, and are caught almost any season of the year in great plenty. The waters of lake Superior pass over the falls of St. Mary, through the straits of the same name, about 40 miles, and empty into

Lake Huron. The length of this lake is 250 miles, and its circumference, including the coasts of the bays, 1100. It lies between lat. 43° , $30'$, and 46° , N. and between lon. 80° and 84° , $30'$, W. The entrance is crowded with numerous islands. The principal of these is St. Joseph, on which there has been, since the surrender of the upper posts, in 1794, a military establishment, the westernmost which the British have erected. About 200 miles east of the straits of St. Mary, in lat. 45° , $53'$, it receives, from the north, the waters of lake Nipissing, through French river. The Nipissing is 36 miles long, and 15 broad; and its distance from lake Huron is 75 miles. French river has many islands in its course, and its banks consist of hills of entire rock. The northern coast of lake Huron is the same, but lower, backed at some distance by high lands. The waters of lake Simcoe, about equal in size to lake Nipissing, fall into lake Huron from the east.

Lake Michigan. The situation of this lake is between lat. 41° , $40'$, and 45° , $40'$, N. and lon. 85° and 87° W. It is 300 miles long, and 945 in circumference. A large bay, on the northwest side of it, is called Green bay. In this lake are many kinds of fish, particularly trout of an excellent quality, weighing often from 20 to 60 pounds. Michigan is separated by a barren tongue of land, 90 miles long and 24 broad, from lake Superior. The southeast extremity of this promontory is called the Detour. About 40 miles northeast of this point is the island of Michilimackinac,* just without the straits of the same name, through which the waters of the Michigan fall into the Huron. Fort Michilimackinac is on the south side of the strait. It stands so near the water's edge, that, in a west wind, the waves break against the stockade.†

The waters of lakes Superior, Michigan, and Huron, are all discharged through Huron river, running south into lake St. Clair. The length of this river is about 40 miles, and the circumference of the lake, 90. It discharges its waters through the river or strait called Detroit (or the strait) into lake Erie. St. Clair lake is of an oval form, and navigable for large vessels. Detroit, with its fort, is situated on the western bank of the river of the same name, about 9 miles below lake St. Clair. The settlements are extended on both sides of the strait or river for many miles towards lake Erie, and some few above the fort.

Lake Erie† is situated between 41° and 43° N. lat. and 79° and 83° W. lon. It is 200 miles long, from E. N. E. to W. S. W. and

* Pronounced *Michilimackinaw*.

† For further information concerning this lake and its environs, see *Michigan Territory*.

‡ Erie, Erige, or Eriks, or the lake of the Cat. *Hennepin*.

710 miles in circumference. A point of land projects from the north side into this lake, several miles, towards the southeast, called Long Point. The islands and banks towards the west end of the lake are so infested with rattle-snakes, as to render it dangerous to land on them. The lake is covered near the banks of the islands with large pond lilies, the leaves of which lie on the surface of the water so thick, as to cover it entirely for many acres together; on these, in the summer season, lie myriads of water snakes, basking in the sun. Of the venomous serpents which infest this lake, the hissing snake is the most remarkable. It is about 18 inches long, small and speckled. When you approach it, it flattens itself in a moment, and its spots, which are of various colors, become visibly brighter through rage; at the same time it blows from its mouth, with great force, a subtle wind, said to be of a nauseous smell; and if drawn in with the breath of the unwary traveller, will infallibly bring on a decline, that in a few months proves mortal. No remedy has yet been found to counteract its baneful influence. This lake abounds with several kinds of fish of fine flavor. It is of a more dangerous navigation than any of the others, on account of the craggy rocks which project into the water, in a perpendicular direction, many miles together, from the northern shore, affording no shelter from storms. A regular steamboat navigation is established on this lake.

Presque Isle is on the southeast shore of this lake, about lat. 42° , $10'$. From this to fort Le Beuf, on French creek, is a portage of $15\frac{1}{2}$ miles. About 20 miles northeast of this, is another portage, of $9\frac{1}{4}$ miles, between Chataughue creek, emptying into lake Erie, and Chataughue lake, a water of Alleghany river.

Niagara River and Falls. Fort Erie stands on the northern shore of lake Erie, and the west bank of Niagara river, in Upper Canada. This lake, at its northeast end, communicates with lake Ontario by Niagara river, which runs nearly N. somewhat more than 30 miles, embracing Grand and Navy islands in its course, and receiving Tonawanto creek from the east. Eighteen miles from lake Erie are the celebrated *Falls of Niagara*, which are reckoned one of the greatest natural curiosities in the world. The waters which supply the river Niagara, have their source nearly 2000 miles to the northwest, and passing through the lakes Superior, Huron, and Erie, receiving in their course constant accumulations, forming a stream 742 yards wide, and of great depth, at length, with astonishing grandeur, rush down a stupendous precipice of 137 feet,* perpendicular, and, in a strong rapid, that extends 6 or 7 miles below, falls nearly as

* Travellers differ as to the height of these falls. Weld, who visited them, and has given several views of them, states, that the "Great or Horse Shoe" fall, on the Canada side, where most of the water descends, is 142 feet; the other two (for he speaks of three) are each 160 feet high. The quantity of water which passes down this awful precipice every minute, he estimates at 670,255 tons—Heriot states the height of these falls on the Canada side, at 150 feet, and on the opposite, at 164 feet; and the descent from lake to lake about 330 feet. Which of these measurements is the most correct, we undertake not to decide.

much more. The river then becomes a delightful and navigable stream for 7 or 8 miles, and loses itself in lake Ontario. In order to have a tolerable idea of this stupendous fall of water, it will be necessary to conceive that part of the country in which lake Erie is situated, to be elevated above that which contains lake Ontario, about 300 feet; the slope which separates the upper and lower country is generally very steep, and in many places almost perpendicular. It is formed by horizontal strata of stone, great part of which is limestone. The slope may be traced between Ontario and Erie across the strait of Niagara and of Genesee river; after which it is lost in the country toward Seneca lake. It is to this slope the country is indebted, both for the cataract of Niagara and the Great Falls of Genesee. For about a mile above the precipice, the bed of the river sinks gradually 57 feet, which causes grand and fearful rapids. The rapids above the falls, from whatever point you have a fair view of them, afford one of the most stupendous objects of this spectacle; and the vast chasm below, filled with foaming billows, another; while the continual ascent of a cloud of vapor, formed by the spray, exhibits a very singular and beautiful appearance. Morning and evening, when the sun shines, the rainbow in this cloud is perfect. The falls are divided by a small island, which stands on the brink of the precipice, and divides the stream, presenting, for 150 yards, a perpendicular front of rock, fragments of which lie in confusion at its base. At least four fifths, and perhaps nine tenths, of the waters pass on the Canada side of this island, though the width of the other channel is by far the greatest.

The best season for visiting these falls is about the middle of September, and the best position to view them is from the American side, where a flight of stairs has been constructed, by which ladies may descend nearly 200 feet from the precipice, to the bottom of the falls, with perfect safety.*

On Christmas night, 1795, a severe shock of an earthquake was felt here, by which a large piece of the rock that forms the famous cataract was broken off. Another piece is said to have fallen in the summer of 1818.

The cataract of Niagara, some have supposed, was formerly at the northern side of the slope, near the landings; and that, from the great length of time, the quantity of water, and the distance which it falls, the solid stone has been worn away for about 5 miles up toward lake Erie, and its present chasm formed. But Gen. Lincoln, who visited and examined these falls in 1794, says, "On a careful examination of the banks of the river, there appears to be no good foundation for this opinion."

Lake Ontario is situated between 43° and 44° , $10'$, N. lat. and between 76° , $30'$, and 80° W. lon. Its form is nearly oval. Its greatest length is from southwest to northeast, 160 miles, according to Heriot, and its circumference 450 miles. It abounds with fish of an

* Centinel of August 30, 1818.

excellent flavor, among which are those named below.* Its banks in many places are steep, and the southern shore is covered principally with beech trees, and the lands appear good. It receives the waters of the Genessee river from the south, and of Onondago, at fort Oswego, from the southeast, by which it communicates, through lake Oneida and Wood creek, with the Mohawk and Hudson rivers. On the northeast, this lake discharges itself through the river Cataragui (which at Montreal takes the name of St. Lawrence) into the Atlantic ocean. "It is asserted that these lakes fill once in seven years, and that 1794 was the year when they would be full; but as we are unacquainted with any laws of nature, by which this periodical effect should be produced, we may with propriety doubt the fact."†

About 8 miles from the west end of lake Ontario, is a curious cavern, which the Messisauga Indians call *Manito' ah wigwan*, or *house of the Devil*. The mountains which border on the lake, at this place, break off abruptly, and form a precipice of 200 feet perpendicular descent; at the bottom of which the cavern begins. The first opening is large enough for three men conveniently to walk abreast. It continues of this bigness for 70 yards in a horizontal direction. Then it falls almost perpendicularly 50 yards, which may be descended by irregular steps, from one to four feet distant from each other. It then continues 40 yards horizontally, at the end of which is another perpendicular descent, down which there are no steps. The cold here is intense. In spring and autumn, there are, once in about a week, explosions from this cavern, which shake the ground for 16 miles round.

The waters of lake Ontario are discharged at its northeast end, through a great number of islands, between Kingston and Sackett's Harbor, into the river Cataragui, or St. Lawrence, which runs a north-east course of 690 miles, and empties into the gulf of St. Lawrence. It meets the tide upwards of 400 miles from the sea, and is so far navigable for large vessels. This noble river, if considered as rising at the source of the St. Louis, is at least 2000 miles in length; and, in its quantity of water, is surpassed by no river on the globe, except the Amazon and La Plata. Its size may be estimated from the following fact. In Niagara river, 3 miles from lake Erie, in the fall of the year, its width is 7 furlongs, or $\frac{7}{4}$ of a mile, its average depth 21 feet, and its rapidity 6 miles an hour. The commercial advantages of this river will be great in proportion to the population of its banks. The Indian trade, in a great measure, takes its course down the St. Lawrence, particularly since vessels of a considerable

* It is estimated that the following quantities of fish have been taken and salted in lake Ontario only, in 1818.

	Barrels.	Product.
<i>Siscoes</i> , or Lake Herring, - - -	4000	\$ 28,000
White Fish, - - -	1200	10,800
Salmon Trout, - - -	400	5,600

Total, 5600 \$ 44,400

The fisheries of *Erie*, &c. are considered to be much more productive.

Centinel,

† Gen. Lincoln.

size are constantly building for the navigation of the lakes.* The steam-boat navigation is established on this river, and on the lakes Ontario and Erie.

Nicaragua Lake. This is a large lake in the isthmus of Darien, communicating with the gulf of Mexico by Nicaragua river. It is said by Crutwell, to be 300 miles in circumference. At its west end, it is connected, by a narrow strait, with a small lake, called lake Leon.

Xarayes Lake. This is the largest lake in S. America. It lies in the province of Paraguay, and the river Paraguay, the principal source of the La Plata, passes through it. It is said to be very extensive, but we are not informed of its exact dimensions.

Rivers.] The rivers of America, also, in their length, their rapidity, and their quantity of water, surpass by much, any of the rivers of the old world. They reach from one side of the continent to the other; and are not, like most of the rivers of Europe and Asia, confined within the limits of a single country.

Amazon. This is the largest and longest river on the globe. It is sometimes called the *Orellana*, more frequently the *Maranon*, but usually the Amazon. There has been much dispute about the true source of the Amazon. Its two most important branches are the *Tunguragua*, and the *Yucayale*. The *Yucayale* is formed by the *Beni* and the *Apurimac*. Till lately, for about a century, the *Tunguragua* has universally been allowed to be the most distant branch. In the extracts from the Peruvian Mercury, annexed to Skinner's account of Peru, the subject is ably investigated. It is there asserted, that the *Apurimac* was never doubted to be the genuine source, till 1707, when the map of Father Fitz first gave the name of Amazon to the *Tunguragua*. By this map subsequent writers, and even Ulloa, were misled. The Mercury insists that the *Apurimac* is the true source, because it is longer and larger than the *Tunguragua*; and at the same time convicts itself of a strange inconsistency, by furnishing decisive evidence, that the *Beni* is still longer and larger than the *Apurimac*.

The *Beni* rises in the mountains to the E. of the jurisdiction of Cidcica, in about lat. 19° S. It runs from S. to N. with many windings, receiving various large rivers from the mountains. The largest of these is the *Coroyco*, from the province of La Pas, on the W. In lat. 13° S. it throws off a branch in an eastern direction, which at length falls into Lake *Roguaguado*, having an extension of more than 10 leagues, from E. to W. and of 5 from N. to S. From the east end issues an arm, which runs to the Mamora; and from the N. side three rivers, the *Yutay*, the *Tesi*, and the *Coari*, run northward to the Amazon; the *Beni*, after losing this branch, pursues a N. W. course, and is joined by the *Apurimac*, in lat. 10° , $38'$, S. The united stream takes the name of the *Apo-Paro*, or *Gran-Paro*, and continues a N. W. course with great impetuosity. In lat. 80° , $26'$, S. it receives the *Pachited* from the S. W. and

* Smyth.

is thenceforward called the *Yucayale*. Here it turns to the N. E. and continues that direction to the *Tunguragua*. Previous to the junction it is augmented by the *Aguatia*, in lat. 7° , $55'$, S.; by the *Manoa* or *Cuxhiabatay*, in lat. 7° ; by the *Sarayacu*, in 6° , $45'$; and by the *Tapichi y Cano Pocati*, in lat. 5° . Immediately below, it divides into three branches, and at length, forming an extensive bay, unites with the *Tunguragua*, in lat. 4° , $45'$, S.

The *Apurimac*, the other source of the *Yucayale*, rises in the wild heaths of Condoroma, in the province of Tinta in Peru, and in lat. 16° S. It flows impetuously eastward about 3 leagues, toward the cordillera of Vilcanota; then suddenly turning to the W. separates that cordillera from the province of Chambirilcas. Entering the province of Aimaraes and Cotabambas, it directs its rapid course to the N. W. leaving the province of Cusco to the E.; and in Avancoy declines to the N. E. and ceases to be fordable. Determining its career to the N. two leagues below the ridge of Apurimac, it breaks through the Eastern Cordillera, passing between mountains of vast elevation. In lat. 13° , $10'$, it receives the *Cocharcas*, or *Pamphas*, from the heights of Guanca-Velica, on the W.; in lat. 12° , $15'$, the *Vilcomayo* from the E.; and in lat. 12° , $6'$, the *Jauja*, or Indian *Mantaro*, from the W. Here it bends to the N. E.; and in lat. 11° , $18'$, the *Perene* joins it from the same side. In 10° , $45'$, it receives the *Paucartambo*, and only 3 leagues below falls into the *Beni*.

The *Tunguragua*, the other main branch of the Amazon, issues in 10° , $14'$, S. from lake Lauricocha, a small lake in the plains of Bombon, a league in length and half a league in breadth. As it issues from the lake, it is 25 yards wide, and of a proportionate depth. It first runs S. as far as lat. 12° , and forming a circuit, flows E. through the jurisdiction of Juaxa; where, after being precipitated from the E. side of the Andes, it proceeds northward, as far as the city of Jaen, in lat. 5° , $21'$, S. Thence by a second circuit, it runs in a direction N. of E.; till at length, in 4° , $45'$, it falls into the *Yucayale*. The course of the Amazon thence to the ocean is a little N. of E. At the mouth the southern bank lies under the equator; while the N. bank is nearly in 2° N.

According to Ulloa, the distance from the mouth to Jaen is 900 leagues; and from Jaen to the source of the *Tunguragua*, 200 leagues. If these leagues are *Spanish*, the first distance is 3300 miles, and the second 730: making a total of 4030 English miles. If they are *marine* leagues, the first distance is 3144 miles, and the second 692; making a total of 3846 miles. The length of the Beni has not yet been explored. From its source to the mouth of the Amazon is probably from 4500 to 5000 miles.

The Portuguese give the river the name of *Maranon* from the *Tunguragua* to the *Madeira*; and thence downward call it the Amazon. *Maranon* was the aboriginal name of the whole river. It was called Amazon by Orellana.

The Amazon and *Tunguragua* are navigable for the largest ships to Jaen. The tide flows up the Amazon 600 miles.

Missouri. We are not acquainted with any attempt to explore this river, except that made by order of the government of the United States in 1804, 5, and 6. In the account published of this expedition for discovery, the latitude and longitude of no one place is calculated; a connected chain of distances is not given; nor are we informed on what authority a great many facts, which the travellers did not witness, are reported. According to their account, the Missouri, near its source, is formed of three branches, which unite at one place. These branches, by the map annexed to their account, rise among the Rocky Mountains, the northern one near lat. 48° N.; the southern near lat. 42° N.; and all near lon. 122° W. The northern branch, the only one which our travellers explored, was navigable 248 miles. The distance from the confluence of these streams to the Great Rapids, is 283 miles; thence to the confluence with Platte river, 1945 miles; and thence to the confluence with the Mississippi, 630 miles: making a total of 3106 miles, the distance which the Missouri is navigable for boats above its confluence with the Mississippi. This point is 1395 miles from the gulf of Mexico. Others believe, that the length of the Missouri, before it meets the Mississippi, does not probably exceed 2400 miles.* The waters of this river are remarkable for their muddiness and salubrious qualities. These qualities it imparts to the Mississippi.†

The *Mississippi.* This river rises in lat. 47° , $38'$, N. and lon. 35° , $6'$, W. Its course is southeasterly to the falls of St. Anthony, about 600 miles.

The falls of St. Anthony, in about lat. 45° , received their name from father Lewis Hennipin, a French missionary, who travelled into these parts about the year 1680, and was the first European ever seen by the natives. The whole river, which is more than 250 yards wide, falls perpendicularly about 30 feet, forming a most pleasing cataract. The rapids below, in the space of 300 yards, render the descent considerably greater; so that, when viewed at a distance, they appear to be much higher than they really are. In the middle of the falls is a small island, about 40 feet broad, and somewhat longer, on which grow a few cragged hemlock and spruce trees; and about half way between this island and the eastern shore is a rock, lying at the very edge of the fall, in an oblique position, 5 or 6 feet broad, and 30 or 40 long. These falls are peculiarly situated, as they are approachable without the least obstruction from any intervening hill or precipice, which cannot be said of any other considerable falls perhaps in the world. The country around is exceedingly beautiful. It is not an uninterrupted plain, where the eye finds no relief, but composed of many gentle ascents, which, in the

* See further account of this river, under the head of *Missouri State.*

† In a half pint tumbler of this water has been found a sediment of one inch of impalpable marle-like substance. It is, notwithstanding, extremely wholesome and well tasted, and very cool in the hottest seasons of the year; the rowers, who are there employed, drink of it when they are in the freest perspiration, and never receive any bad effects from it. The inhabitants of New-Orleans use no other water, than that of the river, which, by being kept in jars, becomes perfectly clear. [*Hutchins.*]

spring and summer, are covered with verdure, and interspersed with little groves, that give a pleasing variety to the prospect.

A little distance below the falls, is a small island of about an acre and a half, on which grow a great number of oak trees, almost all the branches of which, able to bear the weight, are, in the proper season of the year, loaded with eagles' nests. Their instinctive wisdom has taught them to choose this place, as it is secure, on account of the rapids above, from the attacks of either man or beast.

From these falls this river is boatable to its junction with the Missouri, a distance of 1030 miles,* in which its course is nearly south. It is not so long, deep, or rapid as the Missouri branch.†

The Mississippi receives the waters of the Missouri in lat. 38°, 27', N. lon. 89, 36, W. Its course thence to the mouth of Red river, a distance of 1068 miles, is nearly S. by W. and from Red river to the gulf of Mexico, a distance of 327 miles, about S. E. the whole distance being 1395 miles.‡ Its mouth is nearly in the same longitude with the mouth of the Missouri, or the point where it mingles its waters with the Mississippi.

The following table of the distances of various places on this river, is obtained from Schultz's Travels. We believe they are generally accurate.

From the Missouri to

	<i>whole</i> miles. distance.			<i>whole</i> miles. distance.	
St. Louis	14	14	Natchez	142	998
St. Genevieve	73	87	Loftus' heights	55	1053
Kaskaskias river	16	103	Line of demarca- tion between U. } S. and Florida }	5	1058
Grand chain of rocks	75	178			
Mouth of Ohio	15	193	Red river	10	1068
New-Madrid	75	268	Baton Rouge	104	1172
St. Francis river	240	508	New-Orleans	136	1308
Arkansas	107	615	Fort Balize	87	1395
Yazoo	241	856			

The Louisiana bank, from the great bend to cape Girardeau, 157 miles, continues generally high, except the interval land on the margin of the river; yet it forms, throughout all this distance, only a moderately elevated ridge, from one to four miles from the river. At cape Girardeau it begins to assume the appearance of a rough and mountainous country. This continues 15 miles to the Grand Towers, where the ridge is a perpendicular rocky precipice, 200 feet high. From the Grand Towers to the grand chain of rocks, 6 miles, the land gradually descends to its general level, which it afterwards continues, without interruption. The Illinois or eastern side, on the contrary, from the great bend to the mouth of the Ohio, is a

* Schultz.

† The Missouri being much larger than the Mississippi branch, some modern geographers are beginning to give the whole river the name of *Missouri*, which may have been its proper name. But it is probably as vain now to attempt to change the name of the Mississippi, as it would be to give to America the deserved name of Columbia.

‡ Schultz.

plain level country, except a ridge of hills, which commences at the American bottom, 62 miles south of the bend, and terminates near the Kaskaskias, preserving a distance of from 3 to 12 miles from the river.

From the grand chain of rocks to fort Plaquemine, 43 miles below New-Orleans, a distance by the river of 1173 miles, the Louisiana bank is but a little higher than the ordinary level of the river. It preserves this height for a space from a quarter of a mile to 2 miles wide; westward of which, throughout this whole extent, is a swampy country of from 20 to 50 miles in breadth. This bank is inundated every spring, and often in the autumn; and the superabundant waters of the river are thus poured out over the whole surface of the swamp, and render it entirely incapable of being inhabited or cultivated. In the narrow strip, also, on the margin of the river, there is scarcely a spot in all this distance, that furnishes a site for a town or a village, which is safe at all times from inundation. New-Madrid, the only town on the western side below cape Girardeau, has been once inundated; and the street intended to front on the river, has been washed away, in consequence of a change in the current. A considerable part of the eastern shore is also inundated, except where it is prevented by the narrow bluffs and headlands. Of these there are 14 between the Ohio and the gulf of Mexico. The following table exhibits the names, distances, and breadths on the river, where they are known, of these bluffs.

From the great bend to the

	<i>miles. front.</i>		<i>miles. front.</i>
Iron banks	293	Grand gulf	53
Chalk banks	5	Petit gulf	20
Upper Chickasaw bluffs	154	Natchez	77
Second Chickasaw bluffs	11	White cliffs	20
Third Chickasaw bluffs	26	Loftus' heights	33
Fourth Chickasaw bluffs	33	Little cliffs	103
Walnut hills	253	Baton Rouge	24

The banks on both sides, throughout this distance, are almost universally covered with forest trees. From fort Plaquemine south, both banks are mere swamps to the river's mouth.

The Mississippi has many islands. There are 23 between the great bend and the Ohio, 33 between the Ohio and the Upper Chickasaw bluffs, 51 between these and Natchez, and 42 between Natchez and New-Orleans. Some of these are 5 or 6 miles in length, but they are all low, and subject to inundations. They are constantly changing their position and appearance, and are generally formed in the following manner: A tree, floating down, gets entangled among the branches on the bank, or in shoal water, in the bottom of the river. Other trees, leaves, brush, and the mud of the river lodge against it, and in a short time form a solid bank; the upper end of which is constantly enlarged by fresh accumulations of these various substances, while the lower part is often undermined and washed away by the current. In this way many of these islands are constantly ascending the stream.

The navigation of this river is attended with various difficulties. *Sawyers* are the bodies of trees, which, their roots having become fastened into the bottom of the river, receive from the pressure of the current a regular vibratory motion. They frequently disappear from 1 to 20 minutes, and then raise their trunks, with prodigious swiftness, from 1 to 10 feet above water. They inevitably destroy the boats against which they strike. *Sleeping sawyers* approach only within 12 or 15 inches of the surface, and are still more dangerous. *Planters* are trees firmly bedded in the soft muddy bottom. Some are perpendicular; others incline up or down the stream. They are peculiarly dangerous in the night. Planters and sawyers extend about one third across the river from each side. *Falling banks* are parts of the bank, so undermined by the current, that pieces of them, frequently more than an acre in extent, are falling into the stream. Boats are often destroyed by them. They are sometimes dashed in pieces, also, on the upper end of the *wooden islands*, against which they are forced by the excessive rapidity of the current in those places. Beside these dangers, against which it is impossible always to provide by day, and which render the navigation of the river entirely unsafe by night, there is another more formidable, during the freshet, than either. Below cape Girardeau, in consequence of the lowness of the adjacent country, the river has worn outlets, or *Bayaus*, in the banks, through which its waters are impelled with great rapidity. Without the utmost care there is great danger, when a boat is passing one of these bayaus, that it will be carried away by the current, and lost in the swamps. Several of these bayaus are properly branches of the main river, conducting a part of its waters to the sea. Bayau Chaffalaia commences 3 miles below the mouth of Red river, and pursues a southwest direction to the gulf, into which it empties a part of the waters of the Mississippi near Vermilion bay. In high freshets it is navigable for canoes the whole distance. Bayau Marshac, or, as it is generally called, the Ibberville river, is an outlet on the eastern side, 15 miles below Baton Rouge, which separates Florida from Orleans. It is navigable 3 months in the year for boats drawing 5 feet water. The greater part of the remaining 9 months it is absolutely dry. It conveys the waters of the Mississippi, during freshets, in an E. S. E. direction, to lake Maurepas; a lake about 12 miles long and 8 wide, and connected, at its eastern end, by a short strait, with lake Ponchartrain, which is about 35 miles long and 25 wide, and generally from 12 to 14 feet deep. This lake has several connexions with the bay of Spiritu Santo. Bayau Plaquemine lies 8 miles below Marshac, and bayau Fourch 32 miles below Plaquemine, both on the western side of the Mississippi, and communicating with the gulf by several branches. Beside these *Bayaus*, the main branch of the Mississippi has three mouths, or, as they are called, *passes*. The *east pass* is 20 miles long, and has 16 feet water over the bar. It is the pass principally used; and, immediately above the bar, which is very narrow, has water sufficient for a ship of the line. The *south pass* is 22 miles long, and the *southwest* 25. They have both about 8 or 9 feet over the bar. Fort Balize stands on a little island at the

north side of the east pass. The breadth of the Mississippi at New-Orleans is a mile and a quarter, its depth from 30 to 40 fathoms, and every where from the bar to the mouth of the Ohio, sufficient to float a ship of the line. The *Devil's Race Ground* is a difficult and dangerous passage, 107 miles above the river St. Francis. The current is very rapid, and the river is crowded with planters and sawyers. The *Grand chain of rocks* extends in little clusters or islands quite across the river. Many of them are visible when the water is low. The spaces between these rocks are large enough to afford a safe navigation to those who know their situation. The *Grand Towers* lie 9 miles above. The river here turns to the east. The west bank is a solid, perpendicular rock, through which the stream has scooped out a basin of 200 or 300 yards in length. In front of this basin stand several perpendicular columns of solid rock, of a circular figure, upwards of 100 feet higher than the surface, which have withstood the force of the current. Forty three miles above these is the *Picket island passage*, which is so full of snags, sawyers, and planters, as to render the navigation very dangerous at low water. These are all the obstructions below the great bend in the Mississippi.

Fogs are very frequent on the Mississippi, and those so thick, as to render objects at the distance of 100 feet invisible. They commonly rise only to the height of 30 or 40 feet.

The usual current of the river is 3 miles an hour. In very low water it is less; in ordinary freshets it is commonly 4, and, in the highest, it never exceeds 5. The passage of ships from the Balize to New-Orleans takes up from 5 to 30 days, while a light wind will carry ships down in 12 hours. From New-Orleans to Natchez the voyage often takes up from 60 to 80 days. Ships rarely ascend above this place. Boats descend from Natchez to New-Orleans in one week, but are about three weeks in returning. The boating business on this river and its branches, is now carried on chiefly in steam-boats, which are immensely beneficial to the rapidly increasing population in that vast vale, which is intersected by the Mississippi. The principal branches of the Mississippi, below its junction with the Missouri, are the Ohio from the E. and the Arkansas and Red rivers from the W.

St. Lawrence. A description of this river was given in our account of Lake Ontario.*

La Plata. This river is formed by two others, the Paraguay and the Parana. The Paraguay, the principal stream, rises in about lat. 12° S. runs through the large lake of Xarayes, and, after passing the city of Assumption, receives from the west the Pilcomayo, which rises near Potosi. It unites its waters with those of the Parana, about 750 miles from its mouth. Below this confluence it bears the name of the La Plata, or Silver river, which it received from Sebastian Cabot, who, in 1526, sailed 700 miles up the Parana. Before that period it had been called the Solis, after its discoverer Juan de Solis, who arrived at its mouth in 1515. The La Plata receives the

* See p. 106.

Salado and several other large rivers from the west, and in lat. 34° the Uruguay, a much larger stream, which rises in Brazil, in lat. 26° , $30'$, S. The La Plata is navigable for large vessels as far as Assumption, which is erroneously stated, by the American Editor of Pinkerton, to be 400 leagues. The true distance is 267^{\ast} Spanish leagues, or 977 miles.

Oronoco. The source of the Oronoco is supposed to be in the Ibirinoko mountains, N. W. of lake Parima, in lat. 5 N. and lon. 65 W. Its course, for the first 300 miles, is from N. to S.; and, where it turns westward, lake Parima is at the distance of about 180 miles east. About 150 miles from this turn it receives, from the south, the Casiquiari in lat. 3° , $30'$, N. In lat. 2 N. and about 65 W. the Casiquiari receives the waters of an arm of the Negro. This river, as has been already mentioned, is the northern branch of the Coqueta. The Coqueta, near the equator, divides into the Yupura and the Negro. The Yupura pursues a S. E. course to the Amazon. The Negro runs a N. E. direction, till about 66 W. There it divides a little above Fort Charles, a Fort on the frontiers of Brazil and Carraccas. The smaller stream runs north, and empties into the Casiquiari. The principal stream empties into the Amazon. From the Casiquiari, the Oronoco continues its course westward, as far as St. Fernando, where it receives, from the S. W. the Guaviari, a very considerable river. Here it turns northward, and after receiving the Vichada from the west, pours its waters down the cataracts of Atures. These cataracts completely obstruct the navigation of the river. They lie, according to Depons, 740 miles from the mouth of the Oronoco, and 760 from its source, in lat. 5° , $40'$, N.; and lon. 68 W. Below the cataracts, 90 miles, it is enlarged by the waters of the Meta, one of its principal tributaries, 500 miles in length; which rises in western Terra Firma, and is navigable as far as Maruco, about 370 miles. Below this, 140 miles, the Oronoco receives from the west, the Apura, a river which rises in western Terra Firma, near St. Christopher's, at no great distance from the S. W. extremity of lake Maracaybo. The length of the Apura is 520 miles, 120 S. E. and 400 E.; and in this distance, it is supplied by many large rivers from the province of Venezuela.

The Apura is very large and deep; is navigable about 200 miles; and is even more rapid than the Oronoco, into which it empties its waters by many mouths. From the Apura to St. Thomas, the capital of Spanish Guiana, about 250 miles, the Oronoco receives no large rivers except the Caura, and the Cauapana, both from the S. and none below St. Thomas, but the Caroni. About 150 miles below St. Thomas and 120 from the sea, it divides itself, like the Nile, into a great number of branches, and discharges its waters into the ocean by 50 mouths. The two most distant of these are not less than 180 miles apart. Only 7 however are navigable; and but one of these, the southern, called the *Ship's Mouth*, for vessels of more than 200 tons. This last is near 30 miles wide, and is formed by Point Barima in lat. 8° , $45'$, N. and the isle of Cangrejoa. The banks of the Oronoco

^{*} Ulloa, II. 187, 188.

for 120 miles, and the islands in its delta, are all low, boggy lands, in most places liable to inundations. The Goarauno Indians have found here a secure retreat.

M'Kenzie's River. This is formed by two branches, *Peace* and *Elk River*. *Peace River*, or the *Unjigah*, rises among the Rocky Mountains in a small lake in lat. 54° , $24'$, N. and lon. 121° W. This lake is only 817 yards distant from another lake, of the same size, from which flows Bad River, a branch of the Columbia. *Peace River* runs nearly N. 180 miles, where it is 800 yards broad. Its course is then E. 280 miles, to the Forks, where it receives the East Branch, not yet explored. For about 320 miles from its source, it runs among the Rocky Mountains, having them, most of the way, close to its banks. From the Forks to lat. 57° , $40'$, a little above what is called the *New Establishment*, its course is northerly 140 miles, and then northeasterly 250, when it unites with *Elk River*, in lat. 59° , N. lon. 111° , $20'$, W. Here its current is very rapid, and its width upwards of a mile. *Elk River*, rising in lat. 54° N. lon. 117° W. pursues a northeasterly course of about 180 miles, when it is increased by the waters of Lesser Slave Lake, through Lesser Slave River. Thence it runs easterly, 80 miles, northwardly about 110, and eastwardly again 40, when it receives Pelican River, a considerable stream from Portage La Loche, the height of land between the Mississippi and Slave Lake. Thence it runs due N. 140 miles and falls into the S. W. end of the *Lake of the Hills*. Issuing from the N. W. end, it runs 20 miles further, and joins *Peace River*, as has been mentioned. The united stream here takes the name of *Slave River*, and running a little W. of N. 220 miles, falls into the S. side near the W. end of Slave Lake. Leaving that lake at the N. W. end, in lat. 61° , $20'$, lon. 118° , $30'$, it takes the name of *M'Kenzie's River*, and runs N. W. 170 miles, and 193 due north, when it receives the waters of the *Great Bear Lake*, (a lake about 70 or 80 miles long,) through *Great Bear River*. Its general course is thence northwesterly 422 miles, when it empties into the Arctic Ocean, in lat. 70° N. lon. 135° W. The length of *Peace River* is 850 miles, and that of *Elk River* about 600. The length of *Slave River* is 220, and the distance of its mouth from the mouth of Slave Lake, 180. The length of the *M'Kenzie* branch is 785, making a total length of *M'Kenzie River* to its remotest source of 2035.*

Nelson's River. This also has two principal sources. The *Saskatchewan* and *Winnipeg River*. The *Saskatchewan* rises in the Rocky Mountains, in lat. 50° N. lon. 115° W.; and running, according to *M'Kenzie's* map, about 500 miles, in Pine Island Lake, receives the waters of a river which rises near Portage de Traite. Thence it runs through Cedar Lake, and, 90 miles below, falls into Lake Winnipeg in lat. 53° , $15'$, N. on its western side. *Winnipeg River* issues from Lake Hauteur de Terre only 679 paces from Pêche Lake. After running 180 miles due W. it enters Rainy Lake. Through this lake it runs 45 miles; whence it flows 120 miles, and enters the Lake of the Woods. Its course, after leaving that lake, is N. W.

* These distances are obtained from *M'Kenzie's Travels*.

230 miles, when it falls into Lake Winnipeg in lat. 50, 57. Its whole length is 650 miles. The waters of Lake Winnipeg are discharged at the N. end by *Nelson's River*, which runs N. E. about 500 miles, emptying into Hudson's Bay, at York Fort, in lat. 52, 30. The sources of the Saskatchewan and the Winnipeg are about equidistant from the mouth of Lake Winnipeg; and the whole length of Nelson's River is not less than 1450 miles.

Columbia River. The geography of this river is but imperfectly known. It empties into the Pacific ocean in lat. 46, 40, N. lon. 124 W. Bad river, its most northern branch, heads among the Rocky Mountains, in lat. 54, 24, N. lon. 121 W. in a small lake, about 2 miles long, and only 817 yards from the source of M'Kenzie's river. This is a small stream, and runs only 40 miles before it falls into a much larger branch from the east. About 40 miles lower down, this is joined by the Tacoutche-Jesse, a still larger stream from the S. E. which here is 16 feet deep, and half a mile wide: and gives its name to the whole river. M'Kenzie followed the united stream 150 miles farther, till he came to lat. 52, 30, N. Thence he returned about 70 miles, and went across the country, and down Salmon river to the ocean. The whole distance from the mouth of the Columbia, to the source of Bad river, cannot be less than 1000 miles, nor to the source of the Tacoutche-Jesse probably less than 1200. Captain Lewis and Clarke sailed down the Columbia and its branches 640 miles to the ocean. But we do not know in what latitude they embarked upon it. The Columbia is navigable for sloops as high as the tide water, 183 miles; and, for vessels of 300 tons burthen, 125 miles, (others say 90,) to the entrance of the Multnomah, a large southern branch of the Columbia, which is said to rise on the confines of New-Mexico, near the head waters of the Rio del Norte. This whole distance is tide water, through good land, with many Indian settlements. The waters of the Columbia are clear, and abound with every variety of fish. At the mouth of this river an establishment has been made by a colony from the United States, of which they have quiet possession, the British government having, in due form, relinquished their claim to the country. A line of military posts will probably be soon established between the settlements on the Missouri and those on the Pacific, which will probably be succeeded by permanent settlements.

The *Francisco River*, is very large, 270 miles inland, formed in part by the Rio Buenaventura and its waters, which interlock with the waters of the Rio del Norte and La Platte. This river may form, hereafter, an excellent communication between the eastern settlements, and those on the Pacific ocean.

Colorado. Little is known of the geography of this river. According to Humboldt, it rises in lat. 40° N. and probably in about lon. 110° E. in the mountains of New-Mexico. It is formed of two streams, the Nabajoa, the western, and the Zaguananas, the eastern. The Zaguananas is made up of the Raphael and the Xavier. In lat. about 35° N. it receives the Gila, a very large river from the S. E. and empties into the gulf of California in about lat. 32° 30'. The whole length of the Colorado cannot be less than 1000 miles.

Rio del Norte. Of this river we can only say, that it rises in about lat. 40° N. 40 miles E. of the head of the Colorado; that it pursues a S. E. course till it falls into the gulf of Mexico, in lat. 26° ; that its length is probably more than 1400 miles; and that it is claimed by the United States to be the western boundary of Louisiana.

Heights of Land.] By the height of land, we intend, not the highest point of land in the country, or the continent; but the eminence, from the opposite sides of which the streams flow in opposite directions, to different large rivers, lakes, or oceans. Of these, there are seven important ones in N. America, which follow, beside many others. One is the height of land between the Columbia and Peace rivers. This is a belt of land 817 yards over, between two small lakes, in lat. $54^{\circ} 24'$ N. and lon. 121° W. A second is *Portage La Loche*, which divides the waters of Pelican river, a tributary of Elk river, from those of the Missinipi. A third is *Portage de Traite*, which divides the waters of the Missinipi from those of the Saskatchewan. A fourth is *Portage Hauteur de Terre*, a belt of 679 paces, between Winnipeg river and Dove river. A fifth is that between the St. Louis and the Mississippi. A sixth is that between the Saskatchewan and the Missouri. And a seventh is that between the Rio del Norte, and the Colorado of California.

Points of communication between the two Oceans.] No less than nine of these are mentioned by Baron Humboldt, as having, at different times, attracted the attention of statesmen and merchants. He arranges them according to their geographical position, beginning with the most northern, and following the coasts to the south of the island of Chiloe. The ninth exists in imagination. We shall abridge his account of the others, and make such additions as our information will warrant.

1. From the mouth of the Columbia to the source of Bad river, lat. $54^{\circ} 24'$ N. lon. 121° W. is not less than 1000 miles. Of this distance, Bad river runs only 40 miles, and is extremely difficult of navigation. In it M'Kenzie was wrecked. Hence its name. A more ready way of arriving at the source of Bad river is to enter Salmon river, in lat. $52^{\circ} 20'$, lon. $128^{\circ} 2'$, and ascend it about 100 miles; thence, by an easy land journey of 240 miles N. E. till you strike the Tacoutche-Jesse, in lat. $53^{\circ} 30'$, lon. 123° ; thence up that river, 120 miles, and up Bad river to its source, 40 miles. The distance from this to Peace river is 817 yards, over a very easy portage, so that the head of Peace river, by this course, is only 500 miles from the ocean. Hence the course is down Peace river to the mouth of Elk river, 850 miles; up that river to the lake of the Hills, 20 miles; in that lake, 18 miles; up Elk river again, 140, to Portage la Loche; thence, following the meanderings of the waters, to Portage de Traite, 430 miles; thence down the Missinipi, to fort Churchill, in lat. 59° , a distance probably not less than 500 miles. The distance of the mouth of the Columbia from fort Churchill, on this course, is not less than 3120 miles, with a water communication the whole way, except one portage of 817 yards, and another, at Portage la Loche, of 13 miles. That of Salmon river is 2620 miles from fort

Churchill; 240 of which are by land, besides the two portages already mentioned.*

Mr. M'Kenzie very justly observes, that the government, which should open this communication between the two oceans, by forming regular establishments in the interior of the country and at the extremities of the rivers, would get possession of the whole fur trade of N. America, from lat. 48° N. to the pole; excepting a part of the western coast, which has long been included in Russian America.†

2. Under the 40th degree of latitude, the head waters of the Colorado and the Bravo are separated by a mountainous tract of only 36 or 40 miles in breadth. The period is probably very distant, however, when any use will be made of this channel of communication.

3. Immediately west of the promontory of Yucatan is the peninsula of Tehuantepec. In this peninsula, under the 16th degree of N. lat. is the head of the river Passo, the principal source of the Huasacualco, which empties into the bay of Campeachy. At a small distance from the Passo rises the Chimalapa, which empties into the Pacific ocean. A road was completed in 1800, from the port of Tehuantepec to the Huasacualco, and the most precious merchandize is sent in this way to Vera Cruz, and from thence to Europe.

4. The great lake of Nicaragua empties, by the river St. Juan, into that part of the Caribbean sea, called the gulf of Darien. The communication with the Pacific ocean would be effected, by cutting a canal across the isthmus, which separates the lake from the gulf of

* It ought here to be remarked, that from Portage de Traite there are two other communications with the Atlantic. Both proceed from that Portage through Beaver and Pine Island lakes, down the Saskatchewan 240 miles to lake Winnipeg. Thence the first proceeds across the northern end of that lake 60 miles, and down Nelson's river not less than 500, to York fort; making its distance from the mouth of Salmon river 2920 miles, and from the mouth of the Columbia 3420.

The other proceeds down lake Winnipeg, 280 miles, up Winnipeg river, lake of the Woods, Rainy river, and Rainy lake, to the source of Winnipeg river, 690 miles: across the Grand Portage, 10 miles: coastwise on lake Superior to the falls of St. Mary, 480 (1) miles: across the northern shore of lake Huron, as far as French river, 200 miles: up French river and lake Nipissingue, 115 miles: to the head of Little river, 10 miles: to the mouth of that river, where it joins the Utawas, lat. 46°, 45', lon. 78°, 45', 45 miles: to the mouth of the Utawas, 390 miles: and to Montreal, 10 miles. The whole distance on this route, from the mouth of Salmon river, to Montreal, is 4590 miles, and from the mouth of the Columbia, 5090 miles.

† Columbia river opens another channel of communication, beside those already mentioned: but the information we possess does not authorize us to speak confidently of the distance. According to Captain Clarke's letter, by going up the Columbia 413 miles, up Lewis river 154 miles, and up the Koonkooske 73 miles, we arrive at the western declivity of the Rocky mountains. The distance thence to the Rapids of the Missouri is 340 miles by land. Of this distance 200 miles is along a good road, and 140 over tremendous mountains, which, for 60 miles, are covered with eternal snows. A passage over these mountains is, however, practicable from the last of June to the last of September. The small price of horses, among the Rocky mountain Indians, and those west of them, very much reduces the expense of transportation. Along the three rivers west of these mountains, only three portages are necessary. The distance of the rapids of the Missouri, from the mouth of the Mississippi in the gulf of Mexico, is, according to Captain Clark, 3775 miles: making the whole distance from the mouth of the Columbia, to the mouth of the Mississippi, 4755 miles.

(1) *M'Kenzie, l. 49.*

Papagayo, or that which separates it from the gulf of Nicoya. The length of the first canal would be 4 marine leagues or 14 miles; that of the second, 7 marine leagues or 24 miles. Which of these courses is the least mountainous, has not been ascertained. Dampier says, there is no chain of mountains across either. Nicaragua lake, at its western end, communicates with lake Leon, on which is the city of Leon. At no great distance from this city is the river Tosta, which empties into the Pacific ocean. From Leon to the port of Relaexo is, according to Dampier, 30 miles, across a country flat and covered with mangle trees. The coasts on both oceans, however, are extremely subject to hurricanes and tempests.

5. On the isthmus of Panama, the river Chagre, which is nearly a quarter of a mile wide at its mouth, runs from the town of Cruces to the gulf of Darien, a distance of 43 miles. This river is difficult of ascent. From Cruces to Panama there is a road 15 miles long, over hills of considerable height, in which merchandize is transported on the backs of mules.

6. South of Panama lie the bay and port of Cupica. From this bay to the waters of the river Naipi, is 15 or 20 miles, across a country, throughout the whole distance, quite level and proper for a canal. The Naipi is navigable, and enters the Atrato a little below the village of Zitara. The Atrato enters the gulf of Darien, and is entirely navigable. The ground between Cupica and the mouth of the Atrato, says Humboldt, is the only spot where the chain of the Andes is entirely broken.

7. In the interior of the province of Choco, the small ravine of *Raspadura* unites the neighboring sources of the St. Juan and the Quito. The St. Juan empties into the Pacific ocean; the Quito, with the *Andageda* and the *Zitara*, forms the Atrato. A curate of the village of Novita, in 1788, employed his parishioners to dig a small canal in the ravine; by which, when the rains are abundant, canoes loaded with cocoa *pass from sea to sea*. The mouths of the St. Juan and the Atrato are more than 200 miles apart.

8. In lat. 10° S. the head of the Huanuaco, which runs into the Guallaga, a large tributary of the Amazon, is only about 15 miles from the source of the Huara, which flows into the Pacific. The Xauxo also, a tributary of the Ucayale, has its rise near the source of the Rimac. A canal between these rivers is not practicable; but were good roads laid out from Lima to the Huanuaco, the productions of Peru, in five or six weeks, would arrive at the mouth of the Amazon; while a passage of four or five months is requisite to take them, round cape Horn, to the same point.

If a canal is ever cut between the two oceans, it will probably be at the third, fourth, or fifth of these points. Were it to be made narrow at first, it would probably soon be widened by the force of the Gulf Stream. In time, its width might so far increase, as to prevent the nation, which owned the adjoining country, from commanding the passage. By it, the productions of the islands and coasts of the Pacific ocean would be brought 2000 miles nearer Europe, and 4000 nearer the United States. Eastern Asia would cease to be inacces-

sible, and the isthmus of Darien would no longer prove the bulwark of the independence of China and Japan.

Mountains.] The mountains of America form two distinct ranges, *the eastern, and the western*. The eastern is the Alleghany range; it bears no proportion to the western in length or elevation; and, as it is contained entirely within the United States, it will be described under that head.

The western is unequalled by any on the globe in its extent, and in the number and terrible nature of its volcanoes; though in height far below the mountains of Tibet and Napaul.* It commences near cape Isidro, in lat. 54° S. and, pursuing a course somewhat west of north, preserves, in S. America, a general parallelism with the western coast: after running the whole length of S. America, it passes through the isthmus of Darien, traverses the extent of the Mexican empire, and, gradually deviating from the western coast, continues its original direction, till, in lat. 70° N. it reaches the Northern ocean. It receives different names in different parts of its progress. In S. America, it is called *the Andes*; in Mexico, *the Cordilleras of Mexico*; and, farther to the north, *the Rocky mountains*. Its whole course is considerably west of north. Its longitude, at the southern extremity, is 73° W.; at the isthmus, 80° ; in the northern part of Mexico, 108° ; and, at the Northern ocean, 135° W. Its average distance from the Pacific ocean, in S. America, is 150 miles. It thence passes through Panama, the provinces of Veragua and Nicaragua, sometimes approaching the Pacific, and sometimes the gulf of Darien. From the western end of lake Nicaragua, it runs along the western coast, as far as the bay of Tehuantepec. In the province of Guaxaca, between the rivers Chimalapa and Huasacualco, it occupies the centre of the isthmus. Between latitudes $18\frac{1}{2}$ and 21 N. it takes a more northerly direction, and approaches the eastern coast.† From lat. 21 to 32 N. its general course is about N. W. by N. and through this tract it observes a general parallelism with the western coast. In lat. 32 , the coast bears away westward and the range, from that parallel, pursues a direction about N. N. W. to the Frozen ocean. At least 124 degrees of latitude lie between its northern and southern extremities; and not less than 62 degrees difference of longitude. Its length, from cape Isidro to the isthmus, is not less than 4600 miles; from the isthmus to the northern part of Mexico, 4400; thence to the Frozen sea, 2500; making a total of 11,500 miles. The following rivers in N. America, viz. M'Kenzie's, Columbia, Nelson's, Missouri,‡ Rio del Norte, Red river, Arkansas, (and Colorado, or Sabine; and, in S. America, the Oronoco, Amazon, and La Plata, with their principal branches, all take their rise among these mountains. The range itself is not broken by either of them.

* See the account of the height of the principal mountains on the globe, p. 68.

† Humboldt, l. 47.

‡ M'Kenzie, ll. 300.

Andes. The average distance of the western skirts of the Andes from the Pacific ocean is about 150 miles.* The Andes of Chili are 140 miles in breadth.† Throughout the greater part of Peru they form a double chain. The western ridge comprehends Pachinca, Ilinissa, Chimborazo, &c.; the eastern, Cotopaxi, the Altar, Sanga, &c. Chimborazo is said to be the highest summit in the whole range. It is about 100 miles south of Quito, and 10 north of Riobamba. According to the latest admeasurements, its height is 21,470½ feet above the level of the sea; about 6000 feet higher than Mont Blanc. The height of Cotopaxi is 18,875 feet; and that of Pachinca, 15,929 feet.§ These eminences are all near Quito. In Chili the summits Manflos, in lat. 28°, 45' S. Tupungato in 33°, 24', Dercabezado in 35°, Blanquillo in 35°, 4', Longavi in 35°, 30', Chillan in 36°, and Corcobado in 43°, are asserted by naturalists to be more than 20,000 feet above the level of the ocean.|| We believe, however, that none of them have been measured. Most of the high summits are found between the equator and 4° south, and in the middle and southern parts of Chili. In Terra Firma, the southern parts of Peru, and the northern parts of Chili, few summits are found of any note. In the northwestern parts of Terra Firma, on the banks of the Chagre, they form mountainous land of not more than 1200 feet in height.

Throughout their whole extent, in S. America, the chain is every where broken and interrupted by crevices, like open furrows; and the plains on the ridge are of small extent. These plains, however, are often of an immense height. Several in the province of Quito are from 5000 to 6000 feet; that on which the city of Santa Fe de Bogota is built, is 8413; that of Caxamarca, in Peru, 9021 feet; and that of Antisana, 13,435 feet.¶

According to Humboldt, there are three remarkable chains connected with the Andes, and proceeding from them from west to east: *the northern*, or that of Venezuela; *the middle*, or that of Parima; and *the southern*, or that of Chiquitos.

Northern. The northern contains the loftiest summits. It branches off from the Andes of Quito, and pursues a N. N. E. course to the province of Caraccas. Through that province its course is nearly east, to the gulf of Paria, near the island of Trinidad. Its ordinary breadth is 50 miles, in some places it is 70 miles broad, and never less than 35. Its distance from the coast of Caraccas is not very great; and throughout the province the greater part of the range is capable of being cultivated and inhabited. The highest summit, in that province, is the eastern Pichaco, near the town of Caraccas, whose height is 7668 feet; the next Tumeriquiri, about 5610 feet high.** The highest mountain in the whole of this

* This distance, in Patagonia, has never been ascertained. In the southern part of Chili it is little less than 300 miles; from lat. 32° to 37° south, not more than 120; and, from lat. 24° to 32° south, 210. (1) In Peru, it varies considerably. Near Lima it is about 120 miles; near Quito, about 150.

† Molina, l. 6. ‡ Thomsons' Atlas. § Ulloa, l. 424. || Molina, l. 6.

¶ Humboldt, l. 38—43.

** Depons, l. 51—52.

(1) Molina, l. 1.

range, is the Nevada of Merida, in western Terra Firma, 16,037 feet. The average height of this range, according to Pinkerton, is from 4000 to 5000 feet.

*Middle.** This range is broader, but less lofty than that of Venezuela. It branches from it near Popayan, and stretching from west to east, from the sources of the Guaviari, appears to extend to the northeast of that river, forming the cataracts of Maypura and Atures in the Oronoco, lat. 5° N. Thence it continues its course, with a breadth sometimes of 120 leagues, northeast to the river Caronis; thence eastward by the lake of Parima; where its breadth is 60 leagues, and where it separates the branches of the Oronoco and the Essequibo from those of the Amazon; and thence southeastward to the Atlantic. The volcano Duida, the highest summit in the range, in lat. 3° , $13'$, N. not far from Esmeralda, is 8480 feet in height.†

Southern. The southern range, or that of Chiquitos, unites the Andes of Peru and Chili, with those of Brazil and Paraguay; and stretches from La Paz, Potosi, and Tucuman, through the provinces of Maxos, Chiquitos, and Chaco, towards the government of the mines and of St. Paul, in Brazil. The highest summits appear to be between 15° and 20° S. Very little, however, is known respecting them.

Parallel with these three great ranges there are, according to Humboldt, three very extensive vallies; that of the Oronoco, that of the Amazon, and the Pampas of Paraguay, all opening on the east, but shut on the west by the Andes. The valley of the Amazon, which lies between the middle and southern ranges, is covered with forests, so thick that the rivers alone form roads; while that of the Oronoco and the Pampas are savannahs, or grassy plains, with a few scattered palms. The Pampas extend from lat. 19° to 52° south.

Cordilleras of Mexico. The construction of this chain is very different from that of the S. American Andes, as well as from most other mountains. It is not, like them, a chain of summits rising out of a plain, and often broken by intervening vallies. Here the ridge of the mountains itself forms the plain, and it is the direction of the plain which designates that of the whole chain; while the summits are either dispersed on the plain, or ranged in lines, which bear no relation of parallelism with the direction of the Cordillera. In Peru the intervening vallies prevent the inhabitants of the mountains from travelling in carriages; while carriages pass on this range as far as Santa Fe in New-Mexico, a distance of more than 1700 miles. This plain extends from lat. 18° to 40° N. and is there said to decline insensibly towards the north. The ascent of this plain from either ocean is gradual, and its elevation is from 6000 to 8000 feet above the level of the sea. The

* This range is called, by Depons, the mountains of Santa Fe; by Pinkerton, the range of Paramos.

† Pinkerton.

highest summits in the Cordillera, are Popocatepetl, a volcano, in lat. 18° , $36'$, N. and lon. 98° , $33'$, W. 17,720 feet; Citlaltepetl, or the Pic d'Orizaba, a volcano, in lat. 19° , $2'$, N. lon. 97° , $15'$, W. 17,371; Itztaccihuatl, or the White Woman, in 19° , $10'$, north, 98° , $35'$, west, 15,700 feet; Toluca in 19° , $12'$, N. and 99° , $26'$, W. 15,159 feet; and Naucampatepetl, 13,514 feet above the level of the sea.

To the north of the city of Guanajuato, which lies in lat. 21° N. lon. 100° , $55'$, W. the Cordillera divides into three branches. The eastern runs in the direction of Charcas and Real de Catorce, and loses itself in New-Leon. The western retains a considerable height, as far as Bolanos; when it sinks rapidly, but regains a considerable height in lat. 30° . It terminates at the river Gila. The central is the principal branch, and is from Guanajuato, the continuation of the Table Land of Mexico. It passes between the Bravo and the Colorado of California, and loses itself in the unexplored regions of the north.*

Rocky Mountains. In the latitude of Cook's Entry these mountains begin to be parallel with the western coast, and continue so, as far south as the mouth of Columbia river. There they deviate eastward, and decline considerably in their height. During their parallelism with the coast, they extend from 6 to 8 degrees of longitude in breadth. Along their eastern skirts is a narrow strip of very marshy, boggy, and uneven ground, the outer edge of which produces coal and bitumen. M'Kenzie discovered this bog as far north as 66° ; and, in his second journey, in lat. 56° N. lon. 120° W. Mr. Fidler observed the same at the source of the south branch of the Saskatchewan, in lat. 52° N. lon. 121° , $30'$, W. Next to this narrow belt are immense plains or meadows, commencing at the junction of the river of the mountain with M'Kenzie's river, in about lat. 62° lon. 123° , widening as they continue east and south, till they reach the Red river at its confluence with the Assiniboin; whence they take a more southern direction, along the Mississippi, towards Mexico. Adjoining to these plains is a broken country composed of lakes, rocks, and soil.† We do not know whether the height of either of the summits of the Rocky mountains has been ascertained.

There is one extensive branch of the Rocky mountains, which has not yet received a name. It separates from them in lat. 54° north, lon. 121° west, at the sources of the Tacoutche-Jesse and Peace rivers. It pursues an eastern direction, dividing the Saskatchewan from the Elk, till it passes Portage de Traite, forming the banks of the Missinipi or Churchill river, in 55° , $25'$, north; thence it bears E. S. E. as far as Nelson's river; thence S. E. to lat. 50° , lon. 89° , striking Hill's Severn, and Albany rivers. Here an angle stretches from it, about S. W. till it passes north of the source of the Mississippi. The principal range keeps a course

* Humboldt, Book I. Chap. 3d.

† M'Kenzie, II. 299—301.



south of east, to the source of the river Utawas ; thence it runs nearly N. E. to the coast of Labrador, dividing the waters of Hudson's bay from those of the river and gulf of St. Lawrence.

From the head of Beaver river, on the west, in about lat. 54, a fork proceeds from this branch, between the waters of Elk river and the Missinipi, forming Portage la Loche, and continuing to lat. 57, 15, dividing the streams which run to Hudson's bay, from those which fall into the North sea ; thence its course is nearly N. to beyond lat. 65 ; when an angle runs from it south of west, passes to the north of Slave lake, and strikes M'Kenzie's river near lat. 64. These branches are all connected more or less remotely with the Rocky mountains. They are generally low, and are not known to contain any very lofty summits.*

Mountains of California. It ought also to be mentioned here, that a range of mountains commences near cape St. Lucas, the southern extremity of the peninsula of California, and runs very near the coast as far north as Cook's Inlet, and probably much farther. This range is not known to have any high summits below the latitude of Cross Sound. There the range rises, and, according to La Peyrouse, soon gains a height of more than 10,000 feet. Mount St. Elie, or Elias, the highest in the chain, is, according to the Spanish navigators, who measured it with great care, 18,090 feet in height, above the level of the neighboring ocean.† It is visible 60 leagues off at sea.

NORTH-AMERICA.

EXTENT, POLITICAL DIVISIONS.

Extent.] NORTH-AMERICA is separated from South, by an imaginary line, crossing the western extremity of the isthmus of Panama, and dividing the jurisdictions of Darien and Veragua. Its most southern parallel is 7, 30, N. ; how far it extends north has never been ascertained. If Greenland is a part of the continent, it lies, according to the best maps, between lat. 7, 30, and 82° N. and between lon. 4, and 168, W. Its greatest length, from north to south, is 5178 miles ; and its breadth, from the promontory of Alaska, to the eastern coast of Labrador, is 4570 ; while from cape Prince of Wales, to the eastern coast of Greenland, as it is laid down by Arrowsmith, is 164 degrees of longitude, which, in an oblique direction, is not less than 4820 miles.

* M'Kenzie, II. 298, 299.

† Humboldt, I. 48.

RUSSIAN AMERICA.

Political Divisions.] North-America may be considered under the following divisions, *Russian America*, *Danish America*, *British Possessions*, *United States*, *Spanish Provinces*, and *Aboriginal America*.

Russian America comprehends the island of Spitzbergen, on the east; and the promontory of Alaska, the islands which are near it, and the coast between Portlock harbor and Behring's straits, on the west.

Danish America comprises the island of Iceland, and the country of Greenland.

The British Possessions in North-America are the following:

Newfoundland I.	New-Britain, com-	New S. Wales
Cape Breton I.	prehending	New N. Wales
Prince Edward or St. John's I.	1. Labrador	
Nova-Scotia	2. East-Main	
New-Brunswick	Lower Canada	
	Upper Canada	

The United States. See the divisions under the head of U. States.

Spanish America includes

East-Florida	New-Mexico	Old-Mexico
West-Florida	California	

Aboriginal America includes the territories lying north of New-Mexico and Louisiana, west of the British possessions, and east of the Russian.

Arrangement.] In describing these various countries, we shall have a general regard, in our arrangement, to their geographical situation. Spitzbergen lying farthest to the northeast, we shall take it in connexion with the rest of Russian America, and give them the first consideration. Danish America will follow; and the others in the order, in which they are arranged above.

RUSSIAN AMERICA.

Those parts of N. America, which are claimed by the Russian empire, are the islands of Spitzbergen, lying northeast of Greenland; and the Northwest Coast, from Portlock harbor to cape Prince of Wales, in Behring's straits.

RUSSIAN AMERICA. SPITZBERGEN.

RUSSIAN AMERICA.

SPITZBERGEN.

SITUATION AND EXTENT, DIVISIONS, NAME, DISCOVERY, CLIMATE AND SEASONS, FACE OF THE COUNTRY, HARBORS, MOUNTAINS, BOTANY, ZOOLOGY, MINERALOGY, GENERAL REMARKS.

Situation and Extent.] THE islands of Spitzbergen consist of one large island and numerous smaller ones on various parts of its coast. They lie in the Frozen ocean, N. of Norway and Lapland, and E. of Greenland, between lat. 76° , $30'$, and 81° , N.; and between lon. 9 and 24° E. Their length, from South cape to the north part of the Seven Islands, is about 420 miles; their greatest breadth is not more than 180.*

Divisions.] On the chart of Capt. Phipps, are named, Spitzbergen Proper, on the W. Seven Islands, N. E. Northeastland, Southeastland, and Straats Vorland, on the east of Spitzbergen, from which they are separated by Wyde Janz water.

Name.] *Spitzbergen* is a Dutch word, signifying *sharp mountains*. This name was given it in 1595, by William Barentz, a Dutchman, in consequence of the many sharp and rocky mountains with which it abounds. These islands have been often, but improperly, called East-Greenland, as that name belongs to the eastern shore of Greenland.

Discovery.] Sir Hugh Willoughby discovered Spitzbergen in 1553. He took it, however, for a part of the continent of America. Barentz and Cornelius visited it in 1595, and unfairly claimed the honor of the discovery. In 1773, Captain Phipps, afterwards lord Mulgrave, sailed along the whole western and northern coasts, and thus determined it to be an island.

Climate and Seasons.] The longest day in Spitzbergen is between 4 and 5 months, and the longest night of equal length. During the continuance of its night, from the latter part of October, to the beginning of February, the weather is so intensely cold, as to render the country almost uninhabitable. In 1634 seven Dutch seamen were left on the island, with their own consent, to pass the winter there. Not one of them was found alive in the following spring. Several instances of a similar kind occurring about that time, the island was believed not be habitable. Eight English sailors, however, who were afterwards left there by a whale ship, survived the winter. In 1743 four Russian sailors were shipwrecked on the eastern shore of Spitzbergen; and, of the four, three lived

* Phipps' Chart.

to return, after a residence of 6 years and 3 months. The common heat in the summer is about 50° of Fahrenheit, though in the sun it is frequently as high as 89° . In the winter the snow often falls as hard, and as minute as fine sand.

Face of the Country.] These islands have never been explored. The coasts, in most places, are inaccessible. They are formed of high, barren, black rocks, without the least mark of vegetation; in many places bare and pointed; in others covered with snow. Capt. Phipps saw no springs or rivers, the water, which is abundant, being all produced by the melting of snow from the mountains. In the vallies, between the high mountains in the northeast part of the island, are large bodies of ice, called *Icebergs*. Their face towards the sea is perpendicular, and of a very lively light green color. One was observed by Capt. Phipps 300 feet high, with a cascade of water issuing from it.

Harbors.] Schmelrenburg harbor lies on the western side, in lat. 79° , $44'$, N. lon. 9° , $51'$, E. It is well sheltered from all winds, is 13 fathoms deep, and has a sandy bottom. Close to this harbor lies Amsterdam Island, where the Dutch used formerly to boil their whale oil. They attempted many years since to settle a colony on it; but all the people perished, owing not to the severity of the weather, but to the scurvy. Magdalena bay and Hamburger's bay lie also on the west side, between lat. 79° and 80° . On the northern shore is the harbor of Vogel Sang. The most northerly point of Spitzbergen is the Seven Islands, in lat. 81° . Capt. Phipps discovered that a current runs along the west coast, half a knot an hour, north. It is supposed to be a branch of the gulf stream.

Mountains.] There are many summits on the island, but none of very great height. The height of one on the coast, in lat. 79° , $44'$, was found by Capt. Phipps to be 1503 feet. He saw no appearance of present, or remains of former, volcanoes. Many of the mountains on the coast are, however, much higher. Some of them are visible 30 marine leagues off at sea. In the surrounding ocean there are also many mountains of ice. They are formed in this manner. A large field of ice, driven by the wind or a current against a smaller field, forces it out of the water, till it lodges upon the superior surface; and the height is afterwards increased by the snow and the spray of the sea. Some of them rise 1500 feet out of the water. North of the island, in lat. 81° , $30'$, there is an immense bank of ice stretching for more than 20 degrees of longitude, without the smallest appearance of any opening.

Botany.] In these dreary regions, not a plant is found, except a few capable of enduring the utmost severity of cold.

The only tree is the dwarf willow, which here rises but a few inches above the ground.

The smaller plants are the bulrush, the mouse-ear, two species of crowfoot, four of the saxifrage, two of scurvy-grass, one of sea-

weed, wild celery, endive, water-cresses, seven varieties of moss, and eleven of the herb liverwort.

Zoology.] The rein-deer and the arctic fox are the only beasts on the island.

The birds are the eider duck; the puffin; the fulmar; four varieties of divers, the northern diver, a bird 3 feet 5 inches in length; the traile, the black guillemot, and the auk; three species of gulls, the kittiwake, the dung-hunter, and the ivory gull; the greater tern; and the greater brambling.

The amphibious animals are the sea-horse, called often the sea-cow, and sometimes the morse; the polar bear; the common seal, and the sea-snail.

The fish are the common whale, the fin-fish, the coal-fish, and five varieties of the crab.

Mineralogy.] A coarse kind of marble is the only mineral which Capt. Phipps observed during his residence on the islands.

General Remarks.] Spitzbergen, when first discovered, was entirely destitute of inhabitants; nor were any found on it by the English, when they visited it in 1773. It is, however, the constant resort of the Dutch whalers, and 20 or 30 sail visit it every summer. Pinkerton asserts that the Russians have taken possession of it, though he does not mention how or when. It is true, a Russian expedition sailed from Archangel in 1764, and in August of that year reached Bell sound, on the western coast, in lat. 77°, where they erected five houses, and left a lieutenant and 16 men. The object of the expedition was to discover a northwest passage to the Pacific ocean. In this they failed, as did two other expeditions sent out in the two following years. After that, the establishment in Bell sound was deserted.* Every year, however, a ship goes from Archangel to winter on the western coast. At this time it is entirely uninhabited.† The extreme severity of its climate, the barrenness of its soil, its distance from the track of commerce, and the impossibility of visiting it during two thirds of every year, will forever render it, what it was obviously intended to be, a mere resting place for fishermen.

RUSSIAN AMERICA.

NORTHWEST COAST.

EXTENT, ISLANDS, THE COAST, RUSSIAN SETTLEMENTS, DISCOVERIES.

Extent.] THE most southern settlement of the Russians is one at Portlock harbor, lying between 58° and 59° N. They claim, by

* Coxe's Russian Discoveries, 398—407.
VOL. I.

† Tooke's Russian Empire, iii. 92.

right of discovery, the whole coast from this station northward, as far as cape Prince of Wales, comprising not less than 2500 miles of sea-coast ; together with the numberless islands, which line the shore, and the long chain of islands, which reaches from the promontory of Alaska to the coast of Kamtchatka.

Islands.] The islands claimed by the Russians may be considered under three divisions ; the Kurilian isles, the Aleutian, and the islands on the American coast.

The *Kurilian isles* extend from the southern promontory of Kamtchatka, toward the islands of Jesso and Japan, supposed to be 21 in number, of which the largest are Poro, Muschir, and Mokanturn. Several of these islands are volcanic, and some contain forests of birch, alder and pine, and all abound in foxes of various colors. They were first visited by the Russians in 1713. The particular isles in the south of this chain are not accurately distinguished by their names, being called differently by different navigators. They were peopled from Kamtchatka ; and some of the inhabitants, in the interior of the isles, are called hairy Kurilians. They wear long beards ; live on seals, and the produce of the chase ; are hospitable and docile, and "have all embraced the Christian religion."*

Aleutian Isles. The Aleutian or Fox islands lie in a curve line southwest of Alaska. The westernmost, Attou, is about 300 miles from Kamtchatka. About half way between lie Behring's and Copper islands. Attou and Agattoo are the two largest near the western end of the chain. They are about 40 miles long. East of these lie a great number of small islands, which are little more than rocks standing out of the water. Those near the American coast are much the largest. Of these, Urnnak is about 100 miles in length, Unalaska 120, and Oonemak still larger. Unalaska is the most important of all these islands. It has on the northeast side 3 large, good harbors, formed by 3 promontories. It contains two volcanoes, near one of which is a copious hot spring. The land is, in general, rocky, with loamy and clayey grounds ; but the grass is extremely coarse and unfit for pasture. It contains scarcely any wood. Its trees are the larch, white poplar, pine, and birch ; its shrubs, the dwarf cherry, whortleberry, and raspberry. The land animals are foxes, mice, and weasels ; the amphibious, beavers, sea-cats, and sea-lions. The fish are cod, perch, pilchards, smelts, roach, needle-fish ; and various kinds of shell-fish. The birds, eagles, partridges, ducks, and teals.

The inhabitants of these islands are of a middle stature, tawny, brown colour, with black hair. They wear coats made of birdskins, and cloaks of the intestines of whales. In the gristle of the nose they place a bone from the ends of which they suspend strings of beads. They are filthy in their persons. Their common food is fish and whale fat. They live in caves from 40 to 80 yards long, covered with grass and earth. They are generally mild and gentle in their dispositions, and civil and hospitable in their behavior. They are

* Brooks's Gaz. edit. 1817. This article more properly belongs, perhaps, to the Eastern Continent. These islands are nearer the American coast than any of the Asiatic isles, and hence have been inserted in this place.

by no means deficient in capacity, and have just ideas of the importance of good order and subordination. The beauty and proportion with which they make their boats, instruments, and apparel, evince an unusual degree of ingenuity. They are tributaries to the Russians, and their principal employment is hunting for Russian adventurers; who pay them in beads and tobacco. The whole number of inhabitants in the Aleutian islands is estimated by Mr. Sauer at 2500. They were more numerous when they were discovered. They speak the same language with that spoken on the promontory of Alaska.

Islands on the American Coast. From Alaska eastward, the whole coast is lined with islands. The principal of these is Kodiak. Its length, according to Sauer's map, is about 150 miles, its breadth 70. It is just without the mouth of Cook's inlet, and very near the continent. The islands lying round Kodiak are wholly rocky and mountainous. Kodiak itself has a range of mountains running through it; but a great part of the island is well adapted to agriculture. It contains extensive natural meadows, yielding a large quantity of grass. The climate, though it lies between 57° and 59° N. is often so mild, that cattle can continue out the whole winter. The trees found on it are the willow, aloes, birch, ash, fir, larch, and alder, beside five species of apples; and the various species of berries are abundant. European hortulane plants find here a favorable soil. The quadrupeds are foxes, wolves, gluttons, lynxes, bears, wild boars, rein-deer, hares, ermines, martens, sables, marmots, dormice, wild sheep, marmosets, and hedgehogs; the amphibious animals, otters, beavers, sea-lions, sea-otters, and seals; the birds, cranes, geese, ducks, gulls, ptarmigans, ravens, jackdaws, magpies, herons, puffins, and snipes; and the fish, the whale, turbot, stockfish, herring, salmon, and crab. The inhabitants are called *Kinaght*. In their mode of life they very much resemble the Aleutians. They often live to the advanced age of 100 years. They are about 5000 in number. They speak the same language with that spoken on the American coast,* between Kodiak and Portlock harbor; though in most of its words different from the Aleutian. The men are all employed by the Russians in hunting and fishing, and the women in curing the fish and drying the skins. They pay tribute to Russia.

The Coast.] The natives on the coast, from Alaska to Portlock harbor, lat. 57° 40', are very numerous. According to Shelikoff's narrative, not less than 50,000 had, in 1784, professed obedience to the Russian government.† They compose several tribes, which are frequently at war with each other.

The Indians farther north appear still to be independent. Those near cape Rodney and cape Prince of Wales speak the same language with that of the Tshutski,‡ the nation which inhabits the opposite coast of Asia. They frequently sail across Behring's straits to the Asiatic side to make war upon them. They, as well as the islanders and other natives of the coast, are uncommonly skilful in

* Sauer's Expedition, p. 191.

† Coxe's Russian Discoveries, 285.

‡ Sauer's Expedition, 245.

the use of their boats or Baidars, and, with the utmost ease, outrow a much larger number of Russians and Kamtchadales.

Russian Settlements.] The principal of these is on the southeastern side of Kodiak island. It was established by an enterprising Russian of the name of Shelikoff in 1784. About 50 Russians are stationed there. The harbor called Treeh Svatitely is not very large; but its shores are uncommonly bold, and the water more than 150 fathoms deep. All the islanders are in the Russian service.

The establishment next to this in consequence is at Unalaska. There is another on the island of Afagnack, a little north of Kodiak; and others on the coast, at Cook's inlet, cape St. Elias, port Etches, port Mulgrave, and Portlock harbor. In all these settlements, according to Hassel, there were in 1809 about 800 inhabitants.

Discoveries.] Vitus Behring, a native of Denmark, first explored the regions which we have been describing. On the 14th of July, 1728, he sailed from Kamtchatka river, and went as far north, according to his own account, as lat. $67^{\circ} 18'$. When there, however, he saw no land to the north or east; and does not appear to have known that he had sailed through the straits, which bear his name, or that he had been near the American continent. It is altogether probable, that, owing to some great mistake in his calculations, he estimated his latitude much higher than it really was. Certain we are, he neither knew of the separation, nor the contiguity, of the two continents. In 1741, however, Behring and Steller discovered the continent near Bristol bay. From that period, till the voyage of Capt. Cook, the Russians were continually attempting to explore America. Cook, in a single voyage, did more to discover these regions, than they had done in 50 years. He ascertained the line of the American coast, and the vicinity of the continents; and traced the eastern coast of Asia as high as 68° , and the western coast of America as high as 71° N. latitude.

DANISH AMERICA.

THE possessions of Denmark on the western continent are confined to N. America. Except the three West-India islands of St. Croix, St. Thomas, and St. John, she now claims only Iceland and Greenland.

ICELAND.

SITUATION AND EXTENT, NAMES, ORIGINAL POPULATION, HISTORICAL EPOCHS, ANTIQUITIES, RELIGION, GOVERNMENT, POPULATION, REVENUE, CHARACTER AND MANNERS, LANGUAGE, LITERATURE, CITIES AND TOWNS, ROADS, MANUFACTURES AND COMMERCE, CLIMATE AND SEASONS, FACE OF THE COUNTRY, SOIL AND AGRICULTURE, RIVERS, MOUNTAINS, FORESTS, ZOOLOGY, MINERALOGY, MINERAL WATERS, NATURAL CURIOSITIES.

Situation and Extent.] ICELAND is an island, situated in the northern Atlantic ocean. It is 120 miles east of Greenland, and 270 northwest of the Ferro islands. It lies between lat. 63° and 67° N. and between lon. 13° and 28° W. Its length, from east to west, is 400 miles, and its breadth 270.*

Names.] The *Thule* of Beda and the *Thilla* of king Alfred are, by many, believed to have been Iceland. Nardoddr, a Norwegian pirate, in 861, being driven on the coast, gave it the name of *Snio-land* (Snowland;) and Floke, a Swede, the greatest navigator of his time, visiting it four years afterwards, called it *Iceland*, which it has ever since retained.

Original Population.] We know little of the people who inhabited Iceland when the Norwegians arrived there. The most ancient chronicles affirm that they were Christians; and conjecture has derived them from England and Ireland.

Historical Epochs.] 861. Discovered by Nardoddr, as he was driven out of his course by the winds, on his return from Norway to Ferro.

878. Settled by a colony of Norwegians under Ingolfz; and in 60 years time the whole island was inhabited.

928. Before this year the island had been divided into numberless petty principalities, the chiefs of which were constantly engaged in war and robbery. To prevent this state of confusion, a government was instituted, (in its form a mixture of aristocracy and democracy) which extended over the whole island. Owing to its want of strength, it failed of its effect; and, for the three succeeding centuries, Iceland continued a scene of rapine and violence.

1120. Iceland was converted about this time to the Christian religion after the exertions of 240 years.

1261. The island became subject to Hakans, king of Norway.

1363. With Norway it was brought under the dominion of Margaret, queen of Denmark, and has ever since been a colony of that government.

* Von Troil, Let. III.

1551. Christian III. after 11 years exertions, succeeded in introducing Lutheranism into Iceland.

Antiquities.] Von Troil mentions the ruins of an old castle near Videdal, about 200 rods in circumference; the remains of which on the north side are 120 feet in height, though they are very low towards the south. It is not known when or by whom it was built. There are also several of the Pagan temples and burying places still to be found.

Religion.] The Lutheran is the present religion of Iceland. Its church enjoys a happy tranquillity. It composes two sees; that of Skalholt, containing 127 parishes; and that of Hoolum, containing 62. All the ministers are native Icelanders, and receive a yearly salary of 400 or 500 rix-dollars from the king, exclusive of what they have from their congregations.

McKenzie's account of the moral and religious state of these islanders, is very interesting, and shows that human beings, when religious and moral, can be cheerful and happy, in the midst of poverty.

"The moral and religious habits of the people at large may be spoken of in terms of the most exalted commendation. In his domestic capacity, the Icelander performs all the duties which his situation requires, or renders possible; and while, by the severe labor of his hands, he obtains a provision of food for his children, it is not less his care to convey to their minds the inheritance of knowledge and virtue. In his intercourse with those around him, his character displays the stamp of honor and integrity. His religious duties are performed with cheerfulness and punctuality; and this even amidst the numerous obstacles, which are afforded by the nature of the country, and the climate under which he lives. The Sabbath scene at an Icelandic church is indeed one of the most singular and interesting kind. The little edifice, constructed of wood and turf, is situated perhaps amid the rugged ruins of a stream of lava, or beneath mountains which are covered with never melting snows; in a spot where the mind almost sinks under the silence and desolation of surrounding objects. Here the Icelanders assemble to perform the duties of their religion. A group of male and female peasants may be seen gathered about the church, waiting the arrival of their pastor; all habited in their best attire, after the manner of the country; their children with them; and the horses, which brought them from their respective homes, grazing quietly around the little assembly. The arrival of a new comer is welcomed by every one with the kiss of salutation; and the pleasures of social intercourse, so rarely enjoyed by the Icelanders, are happily connected with the occasion which summons them to the discharge of their religious duties. The priest makes his appearance among them as a friend: he salutes individually each member of his flock, and stoops down to give his almost parental kiss to the little ones, who are to grow up under his pastoral charge. These offices of kindness performed, they all go together into the house of prayer."

The following is his account of the manner in which the clergy of Iceland are educated, and of their circumstances after settlement.

"When a young man, intended for the office of the priesthood, has undergone the required examinations, he leaves the school, and usually returns to his native place; where, in assisting his family to obtain their scanty and hardly-earned provision, he submits to the same labors as the meanest of those around him. During our first journey in Iceland, we were attended by a person in this situation, who performed for us all the menial offices of a servant and guide. These young men are still called upon, however, to pursue their theological studies in as far as their limited means will allow; and to provide for this necessary part of discipline, the superintendence of the bishop is still continued, who annually transmits to each candidate for the priesthood, a series of Latin questions, as a test of his diligence and proficiency. The nature of these questions will be seen from the subjoined list, which was sent to some of the students of divinity in the summer of 1810.* The dissertations in reply to them, are conveyed to the bishop at Reikiavik by those who come down to this part of the coast to fish, or to dispose of their tallow and other commodities to the merchants. After a certain period of probation, and personal examination by the bishop on the doctrines and duties of their profession, the candidates are received into orders, and await the occurrence of vacancies, which may afford them a place of final settlement. It is not, however, a life of luxurious ease, which they enjoy, when their abode is thus determined. From the scantiness of the provision which is made for them in their public situations, the toil of their own hands is necessary to the support of their families; and besides the labors of the little farm, which is attached to his church, the priest may often be seen conducting a train of loaded horses from the fishing station to his distant home; a journey not unfrequently of many days; and through a country wild and desolate beyond description. Their habitations are constructed merely of wood and turf, like those of the farmers of the country, and are equally destitute of all internal comforts. A stove, or place for containing fire, is scarcely ever to be found in them: often there is only one apartment in the house to which the light of the sun has free access, or where there is any flooring but the naked earth; and the furniture of this room seldom comprehends more than a bed, a broken table, one or two chairs, and a few boxes, in which the clothes of the family are preserved. Such is the situation during life of the Icelandic clergy; and amidst all this wretchedness and these privations, genius, learning, and moral excellence, are but too frequently entombed."†

* *Examen Theologicum Candidati—solvendum.*

Quid libri Veteris Testamenti docent de resurrectione mortuorum?

An mali genii homines ad peccandum sollicitant?

In quo consistit venia peccatorum nobis per Jesum parata?

Æternitas penarum post hanc vitam quibus argumentis probatur, et quomodo eam benignitate Summi Numinis concilianda est?

Explicentur Matth. xv. 4, 5, 6; et 1 Cor. iii. 15, 16.

Qualis fuit status religionis in patria nostra ante reformationem?

† M'Kenzie.

Government.] The governor, who is appointed by the crown of Denmark, resides at Bessested, a town in lat. 64° 6' N. lon. 22° 56' W. His power is very limited.

Causes are first decided in the Haerads-thing, or county court, from which the parties may appeal to the Al-thing, or common court, which sits yearly at Thingvall. It is composed of the governor and 12 of the most respectable men in the island. An appeal lies from its decisions to the supreme court at Copenhagen. Most questions are determined according to the laws of Denmark.

Population.] The number of inhabitants is 60,000. At the beginning of the 15th century they were far more numerous; but, in the years 1402, 1403, and 1404, the island was nearly depopulated by a disorder, called the *black plague*, which at that time almost desolated the north of Europe. In 1707, 1708, 16,000 of the inhabitants died of the small pox. They are now probably increasing in number. They are principally of Norwegian descent. Considerable colonies, however, from Denmark and Sweden, have at different times settled in Iceland.

Revenue.] Iceland yields an annual revenue to the Danish monarchy of about 30,000 crowns.

Character and Manners.] The ancient Icelanders lived by war, piracy, and the chase. The introduction of Christianity and the loss of their independence produced a great change in their character and mode of living.

They are middle-sized, well made, though not very strong. Their poverty does not prevent them from being unusually hospitable. They are obliging and faithful, submissive to government, zealous in their religion, and warmly attached to their native country. They are not very industrious; but are fond of amusements; particularly of athletic diversions; of games of chance, in which, however, they never play for money; and of visiting each other for the purpose of reading and reciting the history of Iceland. Their dress consists of very broad, ill-looking shoes, worsted stockings, a wide pair of breeches, a linen shirt, a short jacket, a short coat over it, and a large three-cornered hat. The clothes of those, who dwell north of Arnasfiord, are white; of those, who live south of it, of a coarse black cloth. Their houses are usually about 9 feet high, are made of drift-wood or lava, and have no chimnies, the smoke issuing from a square hole in the roof. Their food, morning and evening, is curds and sour whey; and at noon, dried fish.

Those, who live on the coasts, are employed principally in fishing; those, who live in the interior, in the care of their cattle. Few of them outlive 60. The prevailing diseases are the scurvy, gout, St. Anthony's fire, jaundice, fevers, pleurisy, and lowness of spirits.

Language.] The Icelanders have a language of their own, called the *Icelandic*. It is intermixed with a few Danish words. It is the same with that which was formerly spoken in Sweden, Denmark, and Norway; and it has preserved itself so pure, that any Icelander understands the most ancient traditional history. The Danish is also usually spoken by those who live on the coast. The Runic alphabet, which consisted of only 16 letters, was formerly made

use of ; but about the year 1000, the Latin characters were generally adopted. Few of the Icelanders, however, understood the art of writing before that time.

Literature.] The arts and sciences were extensively cultivated in Norway at the period when Iceland was settled ; and, while the traces of literature were diminished, and at length destroyed, in the mother country, by the troubles which shook the whole north for several centuries, they were on the contrary carefully preserved in the colony. Poetry flourished long before the introduction of the Roman letters, and seven of their early poets, or *Skalds*, have survived the flight of eight centuries. This is owing in part to their intrinsic merit ; and, undoubtedly, in part to the fact, that the language, in which they wrote, is still the vernacular language of Iceland. The list of their poets, who have lived since that period, contains no less than 240. The three most distinguished of these were Snorre Sturleson, the author of the Edda, who died in 1241 ; Olafr Huitaskald, who died in 1259 ; and Sturla Thordson, who died in 1284. Their language is peculiarly rich in poetical expressions ; and they have no less than 136 different sorts of versification. The number of their historians and writers of annals is also very great. The period, when literature most flourished in Iceland, was between 1120 and 1350. At present, though they have few men of learning, yet they are far from being an ignorant people. The peasants all of them can read ; and, beside being well instructed in the principles of their religion, they are also acquainted with the history of their country ; and many of them can repeat from memory the finest passages of their poets. Printing was introduced into the island in 1530, and many valuable editions of books have proceeded from the Icelandic press.

A society was instituted at Copenhagen in 1779, with the professed view of aiding the literature of Iceland, and bettering the condition of the inhabitants, by the suggestion of improvements in their rural economy. Fourteen volumes of their transactions have been published by the society. A second Icelandic society was established in the island in 1794, under the auspices of the chief justice Stephenson, who had been a strenuous advocate for the removal of the former society from Copenhagen to Iceland. The original number of members was not less than 1200, most of the farmers, as well as clergy and civil officers of the country, being included. The object of the institution is the promotion of knowledge and improvement among the people ; and with this view, a fund is provided by the annual contribution of a dollar from each member, and devoted to the publication of books, to be distributed among the subscribers. "Such is the present state of mental cultivation among this singular people. The disparity of their physical and moral circumstances forms an interesting feature equally in the history of literature, and in that of the human species. While the calamities of internal warfare, and the oppression of tyrannical governments, have clouded with ignorance and barbarity, countries on which the sun of nature, sheds its brightest beams,—the possession of peace, of political liberty, and well ordered laws, has given both intellectual

and moral exaltation to a community which has its abode at the very confines of the habitable world."*

Cities and Towns.] The principal towns of Iceland are Skalholt, Hoolum, Thingvalla, Bessested, and Patrifjord. The two last are seaports. The first and the two last lie near the southern end of the island; Thingvalla is more central; Hoolum is farther north. The whole number of seaports on the island is 22. The towns are all of very moderate size; the greater part of the inhabitants of the island living on scattered farms. The coast is much more populous than the interior.

Roads.] The roads of Iceland are so very bad, that the inhabitants are unable to use carriages of any kind. Twenty miles is considered a long day's journey.

Manufactures and Commerce.] The men manufacture leather, work at several mechanical trades, and a few in gold and silver. The women sew, and spin, and make the coarse black cloth of the country, called *wadmal*. There is a woollen manufactory at Beikavik, in which 15 men are employed.

The trade of Iceland was in the hands of the Norwegians till 1408; when the English took it, and carried it on till the Reformation. At that time the Hanse towns got possession of it, and kept it till 1619, when Christian IV. of Denmark farmed it out to a company of Danish merchants. This company being found incompetent to the undertaking, was suppressed in 1662. From that time to 1734, the trade of each haven was sold to the highest bidder. Since 1734 another company has had a grant of it, for which they pay 6000 dollars annually. This company sends to Iceland about 30 ships every year, loaded with corn, bread, wine, iron, and wood; and carries away fish, flesh, butter, blubber oil, skins, wool, woollen cloths, and not less than 2000 lbs. of eider down. This monopoly is extremely pernicious to the Icelanders, and the Dutch smugglers prevent it from being of any service to the company.

Climate and Seasons.] The climate is not unwholesome, as the usual heat is not extreme, nor the cold in general very rigorous. The thermometer has been known, however, to rise to 104° of Fahrenheit; and, in the winter of 1753, 54, the cold, occasioned by the ice in the surrounding ocean, was so intense, that horses and sheep dropped down dead on account of it. Frosts and snow occasionally exist in June, July and August. If they last any length of time, they are almost always followed by a famine. Thunder storms are rare. Northern lights, lunar halos, ignis fatui, and fire-balls are frequent. In the month of January the northwest winds usually bring immense quantities of ice from the coast of Greenland. This ice consists partly of mountains, sometimes 360 feet above water; and partly of field ice, of the depth of one or two fathoms.

Face of the Country.] The surface of this island principally consists of ridges of mountains and barren rocks. The mountains are many of them covered with eternal snows; they cross the country in every direction, and render the greater part of it incapable of cultivation.

* M'Kenzie's Travels in Iceland, 1811.

Soil and Agriculture.] The husbandry of the Icelanders is confined to the raising of cattle, horses, and sheep, of which there are said to be 60,000 on this bleak island.* Their horses are of the Norwegian breed, small, but strong. Corn will not grow. The inland parts of the island do not lie waste. One finds every where, at little distances, farms consisting almost wholly of meadow land.

Rivers.] The chief rivers are in the east. The Skalfanda, the Oxarfiord, and the Brua, all run from south to north.

Mountains.] The mountains consist of broken ridges running in every direction. Many of the summits are considerably elevated. Snæfjeld is 6861 feet above the sea, and Æsian 6000. They are generally volcanic; and the number of eruptions, which have taken place within the notice of history, is prodigiously great. The first on record was in the middle of the 9th century, the second about 1000. The chronicles mention 23 irruptions of Hecla between that year and its last, in 1766, and 40 of other mountains. Mount Hecla is in the southern part of the island, 25 miles from the seacoast. Its height is 5000 feet. During its eruptions, ashes and stones are said to be often thrown to the distance of 150 miles. The lava thrown out in the eruptions of this and the other mountains is often sufficient to cover many miles of country, and to destroy many farms and villages. That which took place in 1783, in a high mountain in the western part of the province of Shapterfiell, seems to have been unparalleled in its violence, and in its desolation. It continued from the 8th of June, to the 13th of August. The lava, which it threw out, covered a tract of country, 90 miles long, and 42 broad, to the depth of from 100 to 120 feet. Twelve rivers were dried up, 20 villages destroyed, and 224 people lost their lives. The fire-spout rose to so great a height, as to be visible 240 miles. A considerable quantity of ashes and sand fell at Ferro, and covered the whole surface of the ground, whenever the wind blew from Iceland. Ships, also, sailing between Denmark and Norway, were frequently covered with them. In many parts of Holland and Germany, a sulphurous vapor was observed in the air, accompanied with a thick black smoke; and in some places a light grayish substance fell upon the earth every night, which burnt with a bluish flame. This obscurity in the air even reached the island of Great-Britain; for the atmosphere was covered, during the whole summer, with a dark thick haze, which prevented the sun from appearing with his usual splendor. Two new islands were thrown up soon after from the bottom of the sea. One 3 miles in circumference, and a mile in height, rose about 100 miles southwest from Iceland, where the water had been 100 fathoms deep. It has since disappeared. The other lay on the northwest, between Iceland and Greenland, larger than the former, and very lofty. A little while before the fire broke out, there is said to have been a very remarkable eruption on the east coast of Greenland, the flame of which was visible in Norway. The two volcanoes are supposed to have had a communication beneath the ocean.†

* M'Kenzie's Travels in Iceland, 1811.

† Encyclop. art. Iceland.

Forests.] Nothing like a forest or a wood is known throughout the island. A few birch trees grow here and there, which are never more than 12 feet high or 4 inches thick. The inhabitants burn turf, fern, juniper, crowberry bushes, the bones of cattle, fishes moistened with train oil, and even dried cow-dung. But their principal resort for fuel is to the coast for drift wood. Every year great quantities of the Norway and common firs, of the linden, willow, cork wood, and red wood are thrown upon the coast. For that deposited on the northeast coast at Langanas, they are principally indebted to the spring floods of the Oby, the Yenisea, the Lena, and other great rivers of Siberia. But the still greater quantities which reach the northwest coast, are believed to come from the Amazon, Oronoco, Mississippi, and other great rivers on the American continent. The gulf stream, though the greater part of it turns south-eastward, near the banks of Newfoundland, nevertheless occasions a northern current along the eastern coast of Labrador and between Iceland and Greenland. Capt. Phipps found, that it ran, with the velocity of half a mile an hour, even on the western coast of Spitzbergen. Down this current the wood of milder climates is directed by Providence, to supply the wants of these inhospitable regions.

Zoology.] Foxes and wild cats are the only wild beasts that inhabit Iceland. But great numbers of arctic bears every winter come over *by ice* from the coast of Greenland.

The swan, eider duck, wild goose, wild duck, ptarmigan, and falcon are the principal birds.

The river fish are soles, flounders, herrings, trout, salmon trout, and salmon; great numbers of whales, and innumerable codfish, are found upon the coast.

Mineralogy.] Marble, red and black jasper, the Iceland agate, rock crystal, and native sulphur, are mentioned by Von Troil among the minerals of the island.

Mineral Waters.] Hot springs are found in every part of the country. Upwards of 60 are enumerated in the Letters on Iceland. The most noted of these is one called Geyser, two days journey from Hecla, near Skalholt. The diameter of the basin is 59 feet, and the height to which the water is thrown, is often more than 100. The heat of the water is 212°.

Natural Curiosities.] Beside the volcanoes and the hot springs already described, we may mention under this head *the caves of lava*. After an eruption, the upper crust of the lava grows cool, and hardens; while the melted matter beneath it, continuing liquid, often runs from below, forming a cavity. These caves are very numerous. The inhabitants make use of them for sheltering their sheep and cattle. The cave of Surtheller is between 34 and 36 feet high, from 50 to 54 feet broad, and 5034 feet long.

Though Iceland is dreary and barren, few countries present more interesting objects to the inquisitive mind.

GREENLAND.

SITUATION AND EXTENT, NAME, ORIGINAL POPULATION, HISTORICAL EPOCHS, RELIGION, POPULATION, FISHERY, CHARACTER AND MANNERS, CITIES AND TOWNS, CLIMATE AND SEASONS, FACE OF THE COUNTRY, RIVERS, BOTANY, ZOOLOGY, MINERALOGY.

Situation and Extent.] CAPE Farewell, the southern extremity of Greenland, is in lat. $59^{\circ} 38'$ N. and in lon. $42^{\circ} 45'$ W. How far the country reaches north, has never been ascertained. It is known to extend farther than lat. 76° N. and, if Baffin may be credited, farther than 78° . The maps generally represent it as extending beyond 82° . It is bounded on the west by Baffin's bay and Davis's straits, which separate it from Labrador. Late voyages to these northern regions (especially O'Reilly's) seem to confirm the opinion, that Greenland, so called, is a cluster of islands, the largest of which is to the southward. The insular character of this territory is confirmed from the following fact. "A whale, struck by a man at Spitzbergen, escaped, and was in a short time after killed and taken by a relation of the same man, who was then at Davis's straits. This curious fact was determined by the harpoon, bearing the mark of the former, being found in the body of the fish when taken. The creature must therefore have found a way to Davis's strait in a course much nearer than by the southern cape."*

Name.] Greenland seems to have derived its name, not from its *verdure*, as has been supposed, but from the following combination of ideas and phrases. Bernard O'Reilly, Esq. says that *Succanuk* is the term adopted by the native Greenlanders for "the luminary (the Sun) that brings back their fishing months with his presence;" so that the south part of the country is called *Succanunga*, *Land of the Sun*. Apollo, (the sun,) when clad in Latin form, is *Grynæus*. The Irish or Celtic term for a midsummer sun is *Grian*; hence *Groen*, or *Greenland*.*

Original Population.] The natives of Greenland are Esquimaux, the same people who inhabit Labrador, and the northern coast of America, as far as M'Kenzie's river, and probably to the western extremity of the continent.

Historical Epochs.] 982. Greenland was discovered by the Norwegians, who planted a colony there. In a little time the country was provided with many towns, churches, and bishops. A considerable commerce was carried on between Greenland and Norway. In 1406, however, all intercourse ceased between the two countries. This colony was scattered over both the eastern and western coasts. Those in the west are said, about that time, to have been exterminated.

* O'Reilly's Voyage to Davis's Strait, 1817.

nated by the natives. What became of the eastern colonists is not known. Their country, about that period, appears to have been rendered wholly inaccessible by the mountains of ice, which floated from the more northern seas, and from that day to this have lined the whole coast.* All access to it from the west has also been prevented, by a stupendous range of mountains, perpetually covered with snow, which separates the two parts of Greenland from each other. It is conjectured that the descendants of the eastern colony are still living.

1576. An attempt was made by the English, under admiral Frobisher, to settle the country. They landed upon the western coast, built a house of stone, and left a variety of toys for the natives. They returned home the same year, and the design was abandoned.

1604. A Danish admiral, named Lindenow, sailed for Greenland, with the express design of discovering the eastern settlement. In the account of his voyage, Lindenow affirmed, that he landed on the east coast, but saw no vestiges of the old colony. Little credit, however, is given to his narrative; for, a very short time after, Carsten Richards, having been sent out on the same discovery, was unable to make land on the eastern side of the country. He could only descry the high mountains at a great distance. Every similar attempt has had a like issue.

1712. The Greenland company at Bergen, in Norway, transported a colony to the western coast, in lat. 64° N. The reverend Hans Egede accompanied them as their minister. To him we are indebted for the best account of modern Greenland. He made several attempts to explore the eastern coast, but could not reach it.

Religion.] The Danes and Norwegians are Lutherans. The Aborigines are Pagans, except a number in the south, around the missionary stations of New-Herrnhut and Lichtenfels, whom the laborious and exemplary Moravian missionaries have been the means of converting to Christianity.

Population.] The colony from Norway occupy the western coast, from lat. 64° to 68° N. It is probable that the country is inhabited as far as lat. 76° N.; and the Norwegians appear to have had a factory, some time since, as far north as lat. 73° . They are believed to amount to from 7000 to 10,000. It is impossible to ascertain the number of the natives. They are said to have amounted, in 1733, to 30,000, when the small pox destroyed great numbers of them. In 1746 their numbers were estimated at 20,000. These estimates were all made by a factor, who resided in the country upwards of 40 years.

* A Danish paper of 1818 states, that 450 square miles of ice have recently been detached from the eastern coast of Greenland and the neighboring regions of the Pole. This mass had rendered that coast inaccessible for 400 years; but at present they can penetrate without obstruction as far as lat. 83° . "This breaking up of the polar ices," says a letter from Copenhagen, "accounts for the continual tempest from the southeast, with heats, storms, and a very electrical state of the atmosphere, which, during three years, have caused us in Denmark to experience hot winters, and cold, humid summers."

Fishery.] Greenland is valuable principally on account of its fisheries. In 1785 Great-Britain employed 153 ships in this fishery, and the Dutch 65. The number has since increased.

Character and Manners.] The natives, in their appearance, resemble the Laplanders. They are short, brawny, and inclined to corpulency; with broad faces, flat noses, thick lips, black hair and eyes, and a yellowish, tawny complexion. They are vigorous and healthy; but short-lived. In their dispositions they are cold, phlegmatic, indolent, and slow of apprehension; but very quiet, orderly, and good-natured. They are extremely filthy in their mode of living. Their whole business is fishing and hunting. They live, in the winter, in huts made of stone or turf, several families usually occupying the same building. In summer they live in tents of a conical form, covered on the inside with deer skins, and on the outside with seal skins.

Cities and Towns.] There is a Danish settlement called Good Hope, in lat. 64°, and another in Disco bay, called Disco, not far from 68°. New-Herrnhut, Lichtenfels, and Lichtenau, are the principal Moravian establishments. These places are the residence of the Moravian missionaries. The native inhabitants around the two first of these places have all been baptized, so that no trace of Paganism is now left in that neighborhood.*

Climate and Seasons.] Between lat. 64° and 68° N. in the summer, which continues from the last of May to the middle of September, the weather is warm and comfortable, while the wind blows easterly; though even at this time storms frequently happen, which rage with incredible violence. The sea coasts are often infested with fogs, that are alike disagreeable and unhealthy. Near the shore the low lands are clothed with verdure; but the inland mountains are perpetually covered with snow. Above lat. 68°, the cold is prodigiously intense; and, towards the end of August, the whole coast is covered with ice, which lasts till May.

Face of the Country.] Greenland is generally mountainous. We have already mentioned that the eastern and western divisions are separated by a broad and lofty range of mountains. How far this continues northward, is not known. The mountains are barren; the vallies and low grounds, especially near the sea, are fruitful. Several of the mountains are visible 40 leagues at sea.

Rivers.] We know the name of none of these, except Baal's river, near lat. 64° N. It runs southwest, and has been navigated 40 miles up the country.

Botany.] A few oaks are found in the more southern districts. Wild thyme, tormentil, juniper, the blueberry, bilberry, and bramble, are indigenous; as are the willow and birch; but they are of a small, stunted growth. Corn will not arrive at maturity; many of the hardier European vegetables thrive very well.

Zoology.] The quadrupeds, which abound most, are rein-deer, foxes, hares, dogs, and white bears. The dogs are used as beasts of burden; and draw the sledges of the Greenlanders 70 miles a day.

* Periodical account of the brethren, 1804.

Sea and water fowl, eagles, ravens, falcons, and other birds of prey, are very numerous; as is likewise a species of linnct, which warbles very melodiously.

Whales, swordfish, and porpoises, abound on the coast; as well as halybut, turbot, cod, and haddock. Seals and morses, also, are very numerous.

Mineralogy.] Crantz mentions among the minerals, spar, quartz, talc, garnets, mica, coarse marble, serpentine, asbestos, amianthus, rock crystal, and black schorl. Copper and gold are believed to exist in the mountains.

BRITISH NORTH AMERICA.

BOUNDARIES AND EXTENT, DIVISIONS, SUBDIVISIONS AND POPULATION, GOVERNMENT.

UNDER this general head we embrace all that part of N. America, which lies E. and N. of the United States, except what belongs to Russia; though nine parts in ten, probably, of this vast territory, belong to the Indian tribes, who inhabit them.

Boundaries and Extent.] On the S. it is separated from the United States by the division line settled in the treaty of 1783,* as far as the Lake of the Woods, lat. $49^{\circ} 20'$ N. lon. $94^{\circ} 30'$ W. Thence W. on the parallel of lat. $49^{\circ} 30'$, to the Pacific ocean. Sir Alexander M'Kenzie supposes that a line from the Atlantic E. to the Pacific W. on the parallel of 45° , would describe the southern boundaries of the British N. American dominions; and that such a line would leave as much territory S. of it, belonging to the British, as there is N. of it, belonging to the U. States, and other powers. The difference between these two lines is very wide, and remains to be settled between the two governments. We shall consider the former as the S. boundary of the British dominions, till it shall be regularly settled by treaty. On the E. British N. America is bounded by the Atlantic ocean, Davis's straits, and Baffin's bay; N. by the Northern ocean;† W. by the Pacific ocean, from lat. $49^{\circ} 30'$ to lat. 58° N.;

* See Boundaries of UNITED STATES.

† Baffin's bay, in every part, was explored in the summer of 1818, by the British ships *Isabella* and *Alexander*, sent out to explore the long sought N. W. passage. Capt. Ross, who commanded these ships, confirms Baffin's account of this Bay, with the exception of some errors in the latitudes and longitudes of places, which he has corrected; and has ascertained that no passage exists between the Atlantic and Pacific oceans through Davis's straits and Baffin's bay, the whole being found to be surrounded by high land. In lat. 74° N. the land stretches westward to lon. 84° W. These ships traced the bay the whole way down to Cape Walsingham, which they ascertained to be in lat. 66° N. lon. 60° W. Between the latitudes of 76° and 78° , in the arctic regions, a nation of hu-

and thence to the Northern ocean, by Russian America. The length E. to W. between the two oceans is about 4300 miles; the breadth about 3100 miles. The most southern point of this vast territory is in lake Erie, lat. $42^{\circ} 30' N.$; the most northern is Icy cape, lat. $71^{\circ} N.$

Divisions.] This country is divided by M'Kenzie into two grand divisions, which we designate by *Eastern* and *Western*. The *Eastern* division embraces all the country lying E. of a line drawn from a point in the strait of St. Mary, between lakes Huron and Superior, lat. $46^{\circ} 30' N.$ to the head of James bay, in about lat. $51^{\circ} N.$ The *Western* division includes all west of this line.

He makes a further *natural* division of this territory. A ridge of high land, commencing on the coast of Labrador, running S.W. to the source of Ottawa or Utawas river, dividing the waters going either way to the river and gulf of St. Lawrence and Hudson's bay, divides the *Eastern* grand division of British N. America. The same ridge continued westwardly, and branching several ways, divides the *eastern* part of the *Western* grand division—as the great ridge, called the *Rocky Mountains*, does its *western* part, of which more particular notice will be taken in our description of that part of British N. America.

The principal seas, lakes and rivers in these northern regions have been described under the general head of *America*.

Of the *Eastern* division, M'Kenzie states, "more than half is represented as barren and broken, displaying a surface of rock and fresh water lakes, with a very scattered and scanty portion of soil."

Of the *Western* division, the same writer says—"This whole country will long continue in the possession of its present inhabitants, as they will remain contented with the produce of the woods and waters for their support, leaving the earth to its virgin state. The proportion of it that is fit for cultivation is very small, particularly in the interior parts, and is also very difficult of access; and while there are any lands unoccupied at the south, there will be no inducement to settle it. Beside, its climate generally is not sufficiently genial, to bring the cultivated productions of the earth to maturity. It will also be an asylum for the descendants of the original inhabitants of the more southern country, who prefer the modes of life of their forefathers, to the improvements of civiliza-

man beings was discovered, who had supposed that the world, to the south, was all ice. These people, existing in these icy regions from generation to generation, we know not how long, "had never tasted of the fruits of the earth—had no idea of a Supreme Being—had never any enemies to encounter." Their chiefs, till these navigators taught them the contrary, had "supposed themselves the monarchs of the universe."

There now only remains to be discovered the termination, if it has one, of Middleton's Repulse Bay, and a few degrees to the northward of it, to determine whether Greenland is an island, or is joined to the American continent. A body of men, prepared for the purpose, from the northernmost station of the Hudson's Bay Company, with the greatest ease, might ascertain this, in one season. (1)

(1) *London Courier*.

tion. Of this disposition there is a recent instance. A small colony of Iroquois emigrated to the banks of the Saskatchewan, in 1799, who had been brought up from their infancy under the Romish missionaries, and instructed by them at a village within 9 miles of Montreal.”*

Subdivisions and Population.] The *Eastern* division of British N. America is subdivided as follows, beginning at the E. and proceeding W. viz.

<i>Subdivisions.</i>	<i>Population.</i>	<i>Date.</i>
1. Newfoundland I.	70,000	1813
2. Cape Breton I.	2,500	
3. Prince Edward's I.†	9,000	
4. Nova-Scotia	75,000	1811
5. New-Brunswick	60,000	
6. New-Britain	Unknown	
7. Lower Canada	224,000‡	1811
8. Upper Canada	136,000‡	1811

The numbers without date, and some of the others indeed, are conjectural in great measure, as no actual census has been taken, but in, perhaps, two or three instances. The whole number of souls in this *Eastern* division, at the present time, including Indians, may be estimated at about 700,000.

Government.] Newfoundland and Cape Breton have governments peculiar to themselves. New-Britain has no government. The other provinces have their own legislatures, and are governed by their own laws.

The governor general of British America usually resides at Quebec, in Lower Canada. He is governor, for the time being, of that one of the six provinces in which he happens to be personally present.

The governor general of Nova-Scotia is governor, for the time being, of that one of the four last mentioned provinces in which he happens to be personally present. He usually resides at Halifax, in Nova-Scotia.

Each province has its own lieutenant governor, who acts as governor in the absence of the governor generals.

* M'Kenzie, vol. II. p. 382.

† Formerly St. John's I.

‡ Exclusive of Indians.

NEWFOUNDLAND ISLAND.

SITUATION AND EXTENT, ORIGINAL POPULATION, TOWNS AND SETTLEMENTS, GOVERNMENT, POPULATION, RELIGION, TOWNS, BANKS, HARBORS, FISHERY, CLIMATE AND SOIL, FACE OF THE COUNTRY, RIVERS.

Situation and Extent.] NEWFOUNDLAND limits the north-eastern side of the gulf of St. Lawrence. It is separated from Labrador by the straits of Bellisle, and from Cape Breton by the principal mouth of the gulf. It lies between lat. $46^{\circ} 45'$ and $52^{\circ} 31' N.$ and between lon. $52^{\circ} 31'$ and $59^{\circ} 40' W.$ Its length is 381 miles, and its breadth varies from 40 to 287. Its shape is triangular.

Original Population.] The aborigines of this island were even more warlike, than their brethren on the continent. The tribe still occupies the northern and more unfrequented parts of the island. They are very shy of the settlers, but sometimes commit depredations, and even with the bow kill persons who are employed in the fishery on the coast. They are not numerous, but seem to be inconquerably savage.

Settlements.] 1497. Sebastian Cabot discovered the island.

1504. Some French fishermen came upon the coast, and fished upon the banks.

1610. Mr. John Guy, with 39 others, began a settlement at Conception bay. Guy was employed by the London and Bristol company. Previous to this time Placentia was settled by the French.

1613. By the treaty of Utrecht Newfoundland was acknowledged by the French to belong to England.

Government.] The admiral of the squadron is governor under a distinct commission, as commander in chief of all his majesty's forces in Newfoundland and islands and coast contiguous. His residence is at St. John's. He sometimes spends only a few weeks in the island towards the end of the season, and then returns home for the winter; but occasionally continues his residence through the year. The island is not colonized, nor any of its towns or settlements incorporated; so that there is no local legislation. The laws are administered by a supreme, and a surrogate, court. There is a chief justice with a bench of magistrates, and a vice admiralty court. But the want of local legislation is complained of as a great grievance.

Population.] The population, in 1813, was from 60 to 80,000; and, in the height of the season, nearer 100,000. Since the peace, trade has declined, and with it the number of settled inhabitants, at least a fifth part. A great proportion of the settlers have usually been from Ireland.

Religion.] The Catholics are to the Protestants as 4 to 1. There have usually been 10 Catholic priests in the island, with a bishop, and several chapels; 4 episcopal churches, several Methodist missionary chapels, and one Congregational society.

Towns and Settlements.] St. John's is the capital, and indeed the only place that can with propriety be called a town. It lies on the eastern side, near the south end of the island, in lat. $47^{\circ} 35' N.$ lon. $53^{\circ} 25' E.$ The population of St. John's in 1813, '14, '15, was about 12,000. The old buildings along the water side were generally confined, small and inconvenient,—the streets were narrow and dirty, and in summer offensive. In February, 1816, a dreadful fire destroyed 117 houses at the east end of the town, mostly new, and some of them spacious. In November, 1817, two still more dreadful conflagrations laid waste nearly the whole of this afflicted town. Not less than half a million sterling of property was destroyed in a few hours. Supplies of provision were sent from Boston and New-York to the sufferers, in the dead of winter, at great risk. The town is rebuilding.

Placentia stands on a large bay of the same name on the southern end, near the eastern side of the island. The bay is an excellent harbor, and is much resorted to by the fishing ships.

Bonavista stands on the eastern side near the middle of the island, on Bonavista bay, in lat. $49^{\circ} 20'$ lon. $53^{\circ} 25'$.

Harbor Grace, Port de Grave, Carboneer, and Brigus, are considerable settlements in Conception bay, and from their compactness, have the appearance of towns; as also Trinity, in the bay of that name.

Fishing Banks.] The *Great Bank* lies 100 miles from the S. E. shore. It is 300 miles long and 75 broad. To the east of this lies *False Bank*. The next is *Green Bank*, 240 miles long and 120 broad; then *Banquas*, about the same size; then *Sand Island Shoals*, *Whale Bank*, and *Bank of St. Peter's*, with several others of less note. These banks extend from lat. 41° to $49^{\circ} N.$

Harbors.] There are about 100 bays and harbors on the coast, in many of which are complete anchoring places, being clear of rocks, and having a good bottom. The principal are Fortune, Placentia, and St. Mary's, on the south; Conception, Trinity, Bonavista, Notre Dame, and White bay, on the east; and the bay of Islands on the west.

Fishery.] The fishery is divided between the shore and the Banks; the latter commences earlier, and finishes sooner, than the former, and is the most productive; but the former, being on the coast, is most beneficial to the settlers. In 1813, '14, during the war in Spain, the export in fish and oil amounted to £1,000,000 sterling. At present the trade is on the decline. The grant of the best fishing shores to the French since the peace has contributed to this decline. The French give a bounty to their fishermen.

Climate, Soil, &c.] In the winter the climate is severe, nothing but snow and ice being visible; and the bays and harbors are entirely frozen. The snow storms are very heavy and frequent; at other times the winter season is very pleasant, the sky clear, and the

air dry. From the first fall of snow, to its breaking up in May, travelling is the greatest amusement of the inhabitants, as there are few roads in the island except such as are made over the snow and ice. The snow, which falls here when the weather is severe, is as fine as dust, which is the case also in Spitzbergen, and other very cold countries. In the spring, and even through the summer, fogs are prevalent, but are confined chiefly to the shore. The land near the coast is rocky and barren, and the few fields and gardens seen around the settlements, are cultivated at great expense and labor. Potatoes and kitchen vegetables are produced, with fine gooseberries and currants. Strawberries, raspberries, and a kind of cranberry, are indigenous.

Fresh meat at all seasons is very dear, and frequently not to be obtained. The supply is casual, mostly from Halifax and Prince Edward's Island. The chief supply of provision is from Great-Britain.

Face of the Country.] The country, for 60 miles from the southern coast, is hilly, but not mountainous. The hills increase in height, as they recede from the sea. They do not form a chain of hills, but rise and fall irregularly and abruptly. The coasts are high, and the shores remarkably bold. The mountains on the S. W. side, near the sea, are very high, and terminate in lofty headlands; such as Chapeau Rouge, a remarkably high promontory, Cape St. Mary's, and Cape La Hune. The hills, on the N. E. terminate in pyramids, but form no continued chain. The country is much wooded, and the hills are covered with birch, hazel, spruce, fir, and pine, all of a small growth; which is chiefly owing to the inhabitants taking off the bark to cover the fish stages. The hills in the north, however, are entirely bald. The interior, as far as it has been penetrated, where there are no mountains, consists of morasses, or dry, barren hammocks, covered with stunted black spruce. In some parts of the island there is timber sufficiently large for the building of merchant ships; the hulk is made of juniper, and the pine furnishes masts and yards.

Rivers.] The rivers are all short and unfit for navigation, but they are of use in floating down the wood with the spring floods. They are, also, excellent guides for the hunters of beavers and other animals to penetrate up the country; which, as yet, has never been done deeper than 30 or 40 miles.

There are several small islands on the coast, the chief of which are St. Peter's and Miquelon, on the S. and Twillengate, Penguin, Fogo, and Belle Isle, on the N.

ISLAND OF CAPE BRETON.

SITUATION AND EXTENT, FACE OF THE COUNTRY, HARBORS, LAKE, SOIL AND PRODUCTIONS, POPULATION, GOVERNMENT, CHIEF TOWNS, MINES, POLITICAL IMPORTANCE, TRADE, HISTORY.

Situation and Extent.] THIS island, formerly called by the French, *Isle Royale*, lies between lat. 45 28 and 47° N. and between lon. 59 44 and 61 29 W. about 130 miles to the eastward of Halifax. It is about 109 miles in length, and from 20 to 84 in breadth; and is separated from Nova-Scotia by a narrow strait, called the Gut of Canso, which is a communication between the Atlantic ocean and the gulf of St. Lawrence.

Face of the Country.] The shores of the island are bold and safe to approach. On the eastern side the land is low, on the northwest the cliffs are high.

Harbors.] The principal are Arichat, Louisburg, Main, or Dieu Spanish river, and St. Ann's, on the E. side; on the W. Port Hood, Margaret, Chetican, and St. Peter's: the last is a very commodious place for carrying on the fishery.

Lake.] The Bras d'Or is a large lake of water which nearly intersects the island, in a line from N. to S. leaving a portage of only a quarter of a mile between the lake and the sea. A number of large rivers empty into the Bras d'Or, and open an easy communication with all parts of the island.

Soil and Productions.] There is a great proportion of arable land on this island; that on the banks of the lake is considered equal to any in N. America. The island abounds in timber and hard wood, as pine, beech, birch, maple, spruce and fir. When the French had possession of the island, great numbers of masts were cut here, and shipped for France.

Population.] On this island there are about 3000 (Pinkerton says 1000) inhabitants, of which number two thirds are French Acadians.

Government.] The legislative power of the island is in the hands of the lieutenant governor and council, who are appointed by the king, as are all the other officers of the government. The expense of the establishment, paid by the British government, amounts annually to 2200*l.* sterling.

Chief Towns.] The principal towns are Sydney and Arichat. Sydney is the seat of government, and is built on the S. E. branch of Spanish river. Very handsome barracks were erected here in 1785, and at present a garrison is kept here of 200 men, under the command of a major-general, who is president of the council, and who commands in the absence of the lieutenant governor.

Arichat is the next place in consequence to Sydney. It is situated on the Isle Madam, and entirely inhabited by fishermen. A

number of merchants from the islands of Jersey and Guernsey, carry on the fishery at Arichat ; and, before the present war, loaded from 20 to 25 sail of square rigged vessels at this port with dry cod-fish ; but this trade has much declined.

Mines.] At the mouth of Spanish river are the coal mines, which at present are open ; they are a royalty, and yield a revenue of 12,000*l.* yearly.*

Political Importance.] This island may be considered as the *Dunkirk* of N. America, and the *key* to Canada ; and the very valuable fishery in its neighborhood depends for its protection on the possession of this place, as no nation can carry it on without some convenient harbor of strength, to supply and protect it.

Trade.] The peltry trade was ever a very inconsiderable object. It consisted only in the skins of a few lynxes, elks, musk-rats, wild-cats, bears, otters, and foxes, both of a red, silver and gray color. Some of these were procured from a colony of Michmac Indians, who had settled on the island with the French, and never could raise more than sixty men able to bear arms. The rest came from Prince Edward's I. or the neighboring continent. Greater advantages are now derived from the coal mines, which are situated near the entrance of the harbor, the working of which, and the fishery, are the chief employment of the inhabitants. The coal lies in a horizontal direction, about 6 or 8 feet below the surface, and may be worked with little digging, or draining of the waters. Notwithstanding the demand for this coal in New-England, from the year 1745 to 1749, these mines would probably have been forsaken, had not the ships which were sent out to the French islands wanted ballast. In one of these mines, a fire has been kindled, which has not yet been extinguished.

In 1743, while this island belonged to the French, they caught 1,149,000 quintals of dry fish, and 3,500,000 do. of mud fish, the value of both which, including 3,116½ tons of train oil drawn from the blubber, amounted to 926,577*l.* 10*s.* sterling, according to the prime cost of the fish at Newfoundland. The whole value of this trade, annually, at that period, amounted to a million sterling. No less than 564 ships, besides shallops, and 27,000 seamen, were employed in this trade. Charlevoix, in his history of France, says, " This fishery is a more valuable source of wealth and power to France, than even the mines of Peru and Mexico would be." At present the inhabitants of this island take about 30,000 quintals of fish, annually, which are shipped for Spain and the Straits, principally by merchants from the British island Jersey, who yearly resort here, and keep stores of supplies for the fishermen.

History.] Though some fishermen had long resorted to this island every summer, the French, who took possession of it in August, 1713, were properly the first settled inhabitants. They changed its name to that of *Ile Royale*, and fixed upon fort Dauphin for their principal settlement. This harbor was 2 leagues in circumference. The ships came to the very shore, and were sheltered from the winds. Forests, affording oak sufficient to fortify and build a large

* Rees' Cyclopaedia.

city, were near at hand ; the ground appeared less barren than in other parts, and the fishery was more plentiful. This harbor might have been rendered impregnable at a trifling expense ; but the difficulty of approaching it (a circumstance that had at first made a stronger impression than the advantages resulting from it) occasioned it to be abandoned, after great labor had been bestowed upon the undertaking. They then turned their views to Louisburg, the access to which was easier ; and convenience was thus preferred to security : The fortification of Louisburg, however, was not begun till 1720.

In the year 1714, some fishermen, who till then had lived in Newfoundland, settled in this island. It was expected that their number would soon have been increased by the Acadians, who were at liberty from the treaties that had been granted them, to remove with all their effects, and even to dispose of their estates ; but these hopes were disappointed. The Acadians chose rather to retain their possessions under the dominion of Britain, than to give them up for any precarious advantage they might derive from their attachment to France. Their place was supplied by some distressed adventurers from Europe, who came over from time to time to Cape Breton ; and the number of inhabitants gradually increased to 4000. They were settled at Louisburg, Fort Dauphin, Port Toulouse, Neruka, and on all the coasts where they found a proper beach for drying the cod.

This island remained in possession of the French till 1745, when it was captured for the crown of Great-Britain by a body of troops from New-England, under the command of lieutenant-general William Pepperell, and has ever since remained in possession of the British.

PRINCE EDWARD'S ISLAND.

SITUATION AND EXTENT, NAME, SOIL AND PRODUCE, CAPITAL, POPULATION, RELIGION, GOVERNMENT.

Situation and Extent.] THIS island is pleasantly situated in the Gulf of St. Lawrence, near the northern coast of Nova-Scotia, and is 103 miles long, and from 10 to 35 broad. It is indented with bays, and intersected with rivers.

Name.] This island was formerly called St. John's, but was incorporated about 12 or 14 years since by the name of *Prince Edward's*, after Edward, Duke of Kent, fourth son of Geo. III.

Soil and Produce.] The soil is light, and free from rocks or stones ; the produce, however, is not sufficient to repay the labor of cultivation. Cattle and sheep are few. Hogs thrive on food which they find in the woods.

Capital.] Charlottetown is the capital, and the only town in the island. It is the residence of the lieutenant governor. The

town is well laid out, the streets at right angles, built of wood, and contains about 12 or 1300 inhabitants. There are some few settlements on the coasts; but very few of the townships which have been laid out are settled.

Population.] The number of inhabitants is estimated at 8 or 10,000, many of whom are from Scotland; of late many have come from Ireland.

Religion.] The Church of England has an establishment at Charlottetown; where also is a presbyterian, and a methodist church. The methodists have several congregations in the island.

Government.] Since the island has been colonized, there has been a legislature, council, and house of representatives, with the lieutenant governor at the head of the executive department.

The other islands in the gulf of St. Lawrence worthy of notice, are,

ANTICOSTI, near the mouth of St. Lawrence river, about 120 miles long and 30 broad. It has no convenient harbor, and is uninhabited.

The MAGDALEN ISLES, lon. $61^{\circ} 40'$ W. and between lat. $47^{\circ} 13'$ to $47^{\circ} 42'$ N. and inhabited by a few fishermen. These islands were formerly frequented by sea-cows, now become scarce.

ISLE PERCEE, about 15 miles south of cape Gaspé, is a small but remarkable island, being "a perpendicular rock, pierced with 2 natural arches, through which the sea flows. One of these arches is sufficiently high to admit a large boat to pass freely through it."

NOVA-SCOTIA.*

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT, BOUNDARIES, NAMES, HISTORICAL EPOCHS, RELIGION, GOVERNMENT AND LAWS, DIVISIONS, POPULATION, SEMINARIES OF LEARNING, CHIEF TOWNS, ROADS, TRADE.

Extent.] NOVA-SCOTIA is a large peninsula, reaching from the province of New-Brunswick into the Atlantic. It lies between

* This account of Nova-Scotia received the corrections, and important additions of Sir G. PREVOST, in 1811. Little authentic information has since been received.

lat. 43 30 and 48 4 N. and between lon. 58 50 and 67° W. Its length is 307 miles, its breadth 154, and it contains about 14,000 square miles.

Boundaries. Bounded N. E. by the gulf of St. Lawrence, and the straits of Northumberland and Canceau ; E. S. and S. W. by the Atlantic ocean ; W. by the bays of Fundy and Verte, and the province of New-Brunswick, with which it is connected by an isthmus about 18 miles wide.

Names.] The name first given this province by the French was *Acadia*, which was intended by them to denote a country of indefinite extent in the northern part of N. America. James I. of Scotland gave it its present name in the year 1621.

Historical Epochs.] In the year 1594, one May, an Englishman, touched upon the coast.

1598. The Isle of Sable was peopled by a number of French convicts, left there by the Marquis De la Roche, who explored the west of Nova-Scotia, but made no settlement.

1605. Henry IV. of France granted the Sieur de Montz a patent of the American territories from lat. 40° to 48° N. In the following year that adventurer made a settlement at Annapolis.

1613. Annapolis was destroyed by an English expedition from Virginia.

1621. James I. of Scotland granted sir William Alexander of Menstry a patent of Nova-Scotia under the great seal of Scotland ; by what right it is hard to tell. It was created into a palatinate, to be held as a fief of the crown of Scotland ; and the patentee had the usual powers of a count palatine. No settlements of any consequence were made under this patent.

1749. The English government published proposals for the establishment of a new settlement at Chebucto (Halifax.) An expedition sailed from England in the autumn of this year, under general Cornwallis, consisting of 2700 persons. Parliament devoted 40,000*l.* sterling, to defray the expense, and 30,000 annually to support the settlement till 1755. Many of the settlers, however, soon deserted. The soil was barren, the climate severe, and the Indians numerous and hostile, and prompted to war, and furnished with weapons, by the Canadian French. The progress of the settlement for the first 11 years was extremely slow.

1760. The capture of Canada this year relieved the settlers of their dangers from the Indians and French. Emigrants came over from England in great numbers, and the prospects of the colony began to brighten.

1763 Nova-Scotia by the treaty of Paris was finally ceded to Great Britain. Since that time the province has advanced rapidly in commerce and population.

Religion.] The established religion is that of the church of England. The diocese of Nova-Scotia includes New-Brunswick, Cape Breton, and St. John's island. It was first made a bishopric in 1787. There were in 1811, 19 missions. The ministers are supported partly by the society in England, and partly by the gov-

ernment. The presbyterian clergyman at Halifax has the same allowance from government, as any clergyman of the church of England. The Roman catholics have a church in Halifax.

Government and Laws.] At the settlement of Halifax, in 1749, the government of Nova-Scotia was unconnected with any of the neighboring colonies ; but in 1763 New-Brunswick and Cape Breton were joined to it, and the whole was under one governor. Thus it remained till 1784, when Canada was made the seat of a general government, to which Nova-Scotia, New-Brunswick, Cape Breton and St. John's Island were in a manner made subject. The governor-general, however, had no power but in the province where he resided. In 1808, the civil and military authorities were joined in the person of the governor ; and the provinces of Nova-Scotia, New-Brunswick, Prince Edward, and Cape Breton, erected into one military command, of which he is the head.

The legislature consists of three authorities, the governor, the council, and the house of representatives.

The power of the governor varies with his instructions.

The powers of the two houses of assembly resemble those of the parliament.

The house of representatives consists of 59 members ; 20 of whom are county members, and the remainder are sent by the different townships. Their proceedings are regulated by the parliamentary precedents of Great-Britain.

The common law of England is in full force in Nova-Scotia, and all statutes made before the settling of the colony, except such as are inapplicable to the state of the country. There are also several statutes made by the legislature of the province ; but few, however, that alter the operation of English laws. The supreme court possesses the joint jurisdiction of the courts of exchequer, king's bench, and common pleas ; and the practice is the same as in those tribunals. This court consists of a chief justice, appointed and supported by the crown ; and of three puisne judges, nominated by the governor, and paid by the province. The governor is the chancellor. He is assisted by two masters in chancery. The judge of the court of admiralty is appointed by the king. The practice of these courts resembles that of the same courts in England. The council of the province is a court of errors, a high court of appeals, and a court of marriage and divorce. An appeal lies from the inferior courts to the council, and from them to the privy council, if the matter in dispute be above 500*l*. Few instances have occurred of such an appeal. All these courts are held in Halifax. Besides these there is an inferior court in every county, at which the *custos rotularum*, or oldest magistrate, presides. Each county also has a court for the probate of wills.

Divisions.] Nova-Scotia in 1811 was divided into the following counties and townships :

<i>Counties.</i>	<i>Townships.</i>	<i>By whom settled.</i>
Halifax, lying partly on the Atlantic, and extending from Lunenburg county to St. Mary's river on the N. E. and partly lying on the bay of Fundy and the gulf.	Halifax Londonderry } Truro Onslow Colchester Lawrence Town Pictou	Irish and Scotch New-Englanders Scotch
Hants, lying on the basin of Minas and river Pigauquid.	Windsor Falmouth } Newport } Rawdon } Douglas }	Irish and Scotch New-Englanders Scotch
King's, lying on the bay of Fundy.	Cornwallis Horton Parrsborough	New-Englanders
Annapolis, lying on the bay of Fundy.	Aylesford Dilmot Pamille Annapolis Clements Digby Clara New-Edinburgh	American refugees intermixed with a few German and Acadian families
Shelburne, bounded S and E. by the Atlantic, and W. by Annapolis county.	Shelburne Argyle Yarmouth Barrington Tasket Palmio Liverpool	American refugees A few Acadians New-Englanders
Queen's, bounded S. by Shelburne co. E. by the Atlantic, and W. by Annapolis co.	Lunenburg Chester New-Dublin	Germans
Sydney, bounded E. by the Atlantic, N. and W. by the gut of Canceau and the gulf, and S. by Halifax county.	Manchester or Gaysborough	American settlers and fishermen

<i>Counties.</i>	<i>Townships.</i>	<i>By whom settled.</i>
Cumberland, bounded on the N. E. by the straits of Northumberland, S. W. by the bay of Fundy, E. by Halifax county, and W. by the New-Brunswick line.	Cumberland Amherst	English and American settlers.

Population.] The number of inhabitants in 1811 was between 70,000 and 80,000 : they have since increased. The great body of the people are of English origin. Considerable numbers have settled there from Massachusetts and Connecticut. After these, the Scotch and Irish are most numerous. There are a few Germans, also, and a few French Acadians.

The Mickmacks were the aborigines of the province. They inhabit the eastern shore, between Halifax and Cape Breton. They are supposed now to have about 300 fighting men. Their numbers are fast diminishing.

Seminaries of Learning.] In the year 1789, a seminary, called King's college, was established by an act of the legislature of the province, at Windsor, in the county of Hants, and was put under the care of a president, whose salary was fixed. The governor, lieutenant-governor, bishop, chief justice, secretary of the province, speaker of the house of assembly, and the attorney and solicitor general, were appointed overseers, as a body corporate. A charter was promised them by government ; but various causes prevented its being granted, until the year 1802 ; when it was passed, and a liberal fund established for the support of the institution. The judge of admiralty was added to the number of overseers. A valuable library was purchased and sent out. Three scholarships, of 30*l.* sterling per annum, were established by the society for the propagation of the gospel, for the encouragement of students in divinity. The university scholarships are only 20*l.* per annum. The president's salary is 400*l.* ; that of the professors, 100*l.*

At Pictou, a public seminary has lately been established, which is described under the article *Pictou*.

Almost every village in the province has a small school ; and each mission has a schoolmaster, who receives a salary from the society for the propagation of the gospel.

Chief Towns.] HALIFAX, the capital of the province, is situated in lat. 44° 40' N. on a spacious and commodious harbor, of a bold and safe entrance. The town is built on the west side of the harbor, on the declivity of a commanding hill, whose summit is more than 300 feet above the level of the sea. The town is laid out in oblong squares. The streets cut each other at right angles. The town and suburbs are about two miles in length ; the general breadth is a quarter of a mile. Its population is above 15,000. It is regularly built, and, until within the last 10 or 12 years, the

houses were entirely of wood. Brick is now more used than formerly. The government house is a large edifice, situated in the south suburbs of the town. It is built wholly of hewn stone, produced and manufactured in the colony. Almost all the public buildings are of wood. Some handsome places of public worship have lately been erected, and the local jurisprudence has been much improved. At the north end of the town is the king's naval yard, completely supplied with stores of every kind for the navy. Halifax is reckoned inferior to no place in British America for a seat of government; as well from the fact that the harbor is open and accessible, at all seasons of the year, as from its easy entrance, and its proximity to the principal interior settlements of the province. The country around the town is very rocky, and the soil bad, and in general very unfit for cultivation.

Pictou is rather a district than a town, containing at least 10,000 inhabitants, many of whom are from Scotland. The harbor, which is one of the best in the province, is formed by the junction of three rivers, called the East, Middle, and West. There are several other harbors in the district; but that called Pictou lies on the N. E. coast, over against P. E. Island. It is distant N. E. from Halifax 100 miles. Its trade consists chiefly in the exportation of timber, great quantities of which are shipped every season for Great-Britain, and dry goods are brought in return. Within the last year or two, a public seminary, for grammar and classical learning, has been established in this place, of which Rev. Thomas M. Culloch is at present the Principal. This institution is open to youth of all denominations, and, from the abilities of its Principal, promises great good to the province.

LIVERPOOL is a commercial settlement on the sea coast in Queen's county. It is built on Liverpool bay, and contains 200 houses. The inhabitants are generally Americans, and almost all merchants or mariners; many are both. The town is regularly built on one long street. The trade is chiefly in fish and lumber to the West-Indies and Spain.

The other principal towns are Lunenburg, Barrington, Argyle, Yarmouth, Digley, Annapolis, and Windsor.

Shelburne and Manchester, once so flourishing and populous, are now almost deserted. The former, in 1783, contained 600 families; now (1811) it has not as many individuals. In Manchester, in the same year, there were 200 houses, or rather huts; now there are 5 houses and 3 barns.

Roads.] The revenue of the province, for some years, was laid out by the governor almost entirely in the improvement of old roads, and the opening of new ones. In 1810, 10,000*l.* was expended in this manner.

The principal post road in the province is that from Halifax to Digby. Carriages of any description may pass this road with great safety and expedition. The distance is 150 miles, and the mail goes once a week. There are two packets established between Digby and St. John's in New-Brunswick, for the convey-

ance of the mails over the bay of Fundy. Both cross once a week. There are two roads from Halifax to Pictou: one, the old road through Truro, 100 miles; the other, the new road by the head of Marquadaoibit, 110 miles. The mail travels this road once a fortnight.

There are two roads to Cumberland: one, by Colchester, 134 miles; the other by Windsor, 118 miles. A packet boat sails every week in the summer from Windsor to Parrsborough, on the opposite side of the basin of Minas.

In short, there is no settlement in the province, which has not a road opened with Halifax; and the traveller may ride from the bay Verte round all the coast to Chignecto bay, without meeting any other interruption than rivers, with established ferries.

Trade.] Since the year 1753, this province has increased in wealth and commerce in a degree scarcely credible. In 1753, the exports amounted to 29,552*l.*; the imports to 934*l.* In 1810, the imports from Great-Britain alone, into the single port of Halifax, amounted to 600,000*l.*; and the imports into the whole province to 1,200,000*l.*

The exports consist chiefly of timber, fish, and lumber, to Great-Britain and the West Indies. The export of timber has of late years been very extensive, and the numerous harbors, from the bay of Chaleurs, to the bay of Fundy, inclusive, have been covered with vessels for cargoes of timber. More than 200,000 tons were exported from that district in 1810. The fisheries, however, afford the principal article of export. The coast abounds with cod, salmon, mackerel, haddock, herring, and alewives. The mackerel are caught in great quantities on the coasts in the county of Sydney. There is a herring fishery on the shores of the basin of Annapolis. The settlers smoke them, and send them to the United States and to the Wes-Indies. Shad are caught in great quantities in the small rivers, and in the basin of Minas.

CHAPTER II.

NATURAL GEOGRAPHY.

CLIMATE AND SEASONS, FACE OF THE COUNTRY, SOIL AND AGRICULTURE, BAYS, CAPES, LAKES, RIVERS, BOTANY, ZOOLOGY, MINERALOGY, MINERAL SPRINGS.

Climate and Seasons] THE winters of Nova-Scotia are generally mild and salubrious. The average height of the thermometer, in the winter of 1809, was, at Windsor, 30°. Once it was as low as 15°. During that winter the harbor of Halifax was frozen over,

which had not happened for 20 years. From 1717, to 1807, the winters were mild, and were thought to be growing milder. Since 1807 they have been uniformly much more severe. The average height of the thermometer, in the summer of 1810, was 68°. Once it was up to 98°, and, in the month of August, 1799, it rose to 100°. It never was higher in the province. The spring is usually late, and the weather rainy and unhealthy. The summer is warm, though seldom to an excess. The rains are not often violent, and rarely continue long. The first two months of the autumn are healthy, mild, and pleasant.

The accounts that are given of the continual fogs of Nova-Scotia are very much exaggerated. In the interior a sea-fog is hardly known. And, though Halifax and other places on the coast are often visited with it in the summer, yet it seldom advances more than 8 or 10 miles into the country.

Face of the Country.] The N. E. shores present to the stranger a gloomy and forbidding appearance. Between Halifax and Torbay the settlements are poor, and few; and the shore rocky and barren. Many miles of coast are formed of mere rock, with a very scanty covering of soil, often without any. For a considerable distance into the interior, also, the country wears the same discouraging appearance. The settlers here are Scotch and Irish fishermen, who are Roman Catholics, and live in extreme poverty. One hut frequently contains two families with their live stock.

The S. W. coast bears the marks of industry and cultivation, particularly the county of Lunenburg; which, though small, is one of the most flourishing and opulent; and far more so, than its neighboring counties, Queen's and Shelburne. Annapolis, King's, and Hants, have many flourishing settlements. All the counties that border on the bay of Fundy are mountainous, and the uncleared hills are covered with hard wood of various kinds.

The highest land in the province is Ardoise hill, about 34 miles N. W. of Halifax. It is one of an extensive range of hills, beginning at the shore of the basin of Minas, near the settlement of Noel, and running 15 or 18 miles eastward, and then in a south course almost parallel with the bay of Fundy, until it meets the sea near cape St. Mary.

Another range of mountains runs from the southwest shore of the basin of Minas, along the bay of Fundy, as far as Annapolis.

The northwest extremity of this range is 430 feet high.

The most remarkable land on the south shore of Nova-Scotia is the high land of Aspotageon, which lies on the promontory which separates Mahone from Margaret's bay. This land may be seen at a great distance from the offing, and is the land generally made by ships bound from Europe and the West-Indies to Halifax. The summit of this land is about 500 feet perpendicular from the level of the sea.

In King's county there are more than 10,000 acres of marsh land that is dyked, and 3000 that is not dyked. In Cumberland county there are 20,000 acres of dyked marsh land in one body.

There are also great quantities of the same land in Annapolis and Hants counties.

Soil and Agriculture.] The soil of these counties is rich and productive, and in general consists of a coarse loam; except on the plains between Annapolis river and the mountains, and the shores of the bay. There it is sandy and dry. Grain grows abundantly in every part of these counties; and enough might be raised in them to supply the whole of Nova-Scotia.

The soil, in the counties on the seacoast, is generally barren, and the agriculture very little improved. This, however, is partly owing to the fact, that the inhabitants are so generally engaged in the fisheries. The consequence is, that almost all the land retains its ancient covering of pine, spruce, fir, and hemlock. The county of Lunenburg is an entire exception to these remarks.

The country west of cape Canceau is more improved, and there are many flourishing settlements.

Bays.] Between Canceau and cape Sable, the two extremities of this province, there are perhaps more bays and harbors than on any other coast in the world.

The bay of Fundy is the largest, except the gulf of St. Lawrence, which has been already described. This bay puts up between New-Brunswick and Nova-Scotia, from the south, about 150 miles. Its breadth at its mouth is 100 miles; but from the gut of Annapolis to St. John's is only 36 miles. The bay branches towards the north. The western branch is called Chignecto channel; the eastern the basin of Minas. The southeast arm of this basin is called Cobequid bay. Tides rise in the bay of Fundy 30 feet, in the basin of Minas 40 feet, in Chignecto channel 60 feet. The rise of the tide is so very rapid, that swine and other animals feeding on the shore, which the tide overflows, are often overtaken, and overwhelmed, unable to make their escape.

Between cape Canceau and cape Sable, are the harbors of Canceau, 45 leagues northeast of Halifax; Torbay, St. Catherine's bay, Country, Siscomb's, Beaver, Sheet, and Ship harbors, Jeddore, Tangier, Chebucto, St. Margaret's, and Mahone bays; Liverpool harbor, Port Rouway, Barrington, and Robomcoups bays.

To these may be added Verte, Pictou, and Chedabucto bays on the coast northwest of cape Canceau; Townshend's bay in the county of Shelburne; and St. Mary's in the county of Annapolis.

Capes.] The principal capes are cape Sable at the southern, and cape Canceau, at the northern extremity of the province; cape Blowmidown, at the south side of the entrance from the bay of Fundy into the basin of Minas, and cape d'Or on the north side; cape Split to the west of cape Blowmidown, and Chignecto cape to the west of cape d'Or; cape St. Mary, the southwest extremity of the province; cape Negro, Sambro's Head, Pope's Head, and cape Lewis, now cape St. George.

Lakes.] There are few lakes in the province of any considerable size. The largest, lake Rossignal, is 20 miles from Annapolis, between that place and Shelburne. It is the source of Liverpool river. Porter's lake lies a little east of Halifax, and empties its waters into

the ocean about 15 miles east of that place. It is 15 miles long, and one half a mile broad. Potowack, or Chester lake, is on the road from Chester to Windsor, 15 miles from the former. Shubenaccadie is 20 miles from Halifax, and 7 from Windsor.

Rivers.] Annapolis river runs in King's county, and flows 47 miles into Annapolis basin. It is navigable at high tides, for vessels of 100 tons, 14 miles. The Shubenaccadie, rising one mile from Dartmouth, runs 55 miles, and empties into Chebequid bay. It forms several lakes in its course, and is joined by Guy's river about 30, and by the Stewiack, 18 miles from its mouth. The Pigaquid rises in the county of Lunenburg, 8 miles from Chester, and after a course of 29 miles, falls into the basin of Minas. Near its mouth it receives the St. Croix, Kennetcook, and Wemiguen. The tide flows up very rapidly 16 miles. Vessels of 400 tons go up at high tide 10 miles to Windsor, and those of 100 tons, 5 miles farther.

Botany.] The natural productions of the soil are the same as those of the United States.

Zoology.] The animals also resemble those of New-England, but are not so numerous.

Mineralogy.] There are mines of various descriptions in many parts of the province; but it is very doubtful whether, in the present state of the country, any of them would pay the expense of opening and working.

A good deal of iron ore has been found near Annapolis. Pieces of copper ore were found some years ago at cape d'Or and Haute isle, and near cape Chignecto, but none lately.

There are many extensive coal mines at Cumberland, and others in many parts of the province; but none are worked, except a small one near Cobequid, from which the neighboring settlers get the chief part of their fuel. Halifax, the only place where coal is generally burned, is supplied from cape Breton and Scotland.

The province abounds in limestone, which is found in every county. Great quantities of gypsum are quarried in Hants, and at Canceau, and exported to the other provinces and the United States. There are extensive quarries of freestone near Pictou.

Mineral Springs.] Near Windsor, in Hants county, is a strong chalybeate spring, but its properties have never been ascertained. The earth around is strongly impregnated with iron, and its waters are wonderfully cathartic. There is another of the same appearance and qualities near Shelburne, and one near Pictou.

PROVINCE OF NEW-BRUNSWICK.

BOUNDARIES, POPULATION, CHIEF TOWNS, RIVERS, SOIL, &c. BAYS
AND LAKES, TRADE, FORTS, ANIMALS, INDIANS, HISTORY.

Boundaries.] BOUNDED west by the District of Maine, from which it is separated by the river St. Croix, and a line drawn due north from its source to Canada line; north by the southern boundary of the province of Lower Canada, until it touches the seashore at the western extremity of Chaleur bay: then following the various windings of the seashore to the bay of Verte, in the straits of Northumberland; on the southeast it is divided from Nova-Scotia by the several windings of the Missiquash river, from its confluence with Beau basin (at the head of Chignecto channel) to its main source; and from thence by a due east line to the bay of Verte, before mentioned: the northern shores of the bay of Fundy constitute the remainder of the southern boundary. Several islands in Passamaquoddy bay are also within the limits of the province.

This province formed a part of the province of Nova-Scotia, until the year 1784, when, for the convenience of the loyalists, who had resorted here from the United States, it was erected into a separate province.

Population.] The number of inhabitants in this province probably exceeds 60,000, although we have no means of ascertaining the number with exactness.

Chief Towns.] The city of St. John, the capital of this province, is situated on high ground, at the mouth of the river St. John. The streets are spacious and regular. It contains upwards of 2000 inhabitants, several well built houses, a handsome church for Episcopalians, one for Presbyterians, and one for Methodists, and a city hall. This city was incorporated 1785, during the governor's residence there, and is governed by a mayor, recorder, six aldermen, and six assistants, the two former appointed by the governor, the latter chosen annually by the inhabitants in their respective wards, into 6 of which the city is divided, four on the eastern, and two on the western side of the harbor; the two latter comprehend the district originally called Carleton, including the ruins of Fort Frederick. The tides rise here sometimes upwards of 30 feet; in consequence of which, this harbor is never obstructed by ice, but open for navigation through the whole winter. A light-house has been erected on Partridge island, at the entrance of the harbor.

Frederickton, the present seat of government, formerly called St. Anne's, lies about 80 miles up the river St. John, at the head of sloop navigation. This town is regularly laid out, in spacious streets, crossing each other at right angles, upon a plain. It has a

church, an elegant province hall, for the accommodation of the general assembly and courts of justice, and several well built houses. It has upwards of 500 inhabitants. In this town and its vicinity, several valuable tracts of land are appropriated for the support of a college, and vested in a corporation, erected by charter for the government of this institution, the foundations of which have been thus wisely laid by the governor.

St. Andrews, situated in the rear of an island of that name on the east side of an arm (called Scoodic) of the inner bay of Passamaquoddy, is very regularly laid out in the form of an oblong square. It has but few houses, built on a small scale. The few inhabitants it contains are chiefly employed in the lumber trade. The common tides rise here about 18 feet.

Rivers, Soil, &c.] St. John is the principal river in this province. From its entrance into the bay of Fundy, to its main source, is computed to be 350 miles. The tide flows 80 or 90 miles up this river. It is navigable for sloops of 50 tons 80 miles, and for boats 200. Its general course from its source is E. S. E. It is the common route to Quebec. It furnishes the inhabitants with herring, salmon, bass and sturgeon. About one mile above the city of St. John is the only entrance into this river. It is about 80 or 100 yards wide, and about 400 yards in length. This passage is called *the falls* of the river. It being narrow, and a ridge of rocks running across the bottom of the channel, on which are not above 17 feet of water, it is not sufficiently spacious to discharge the fresh waters of the rivers above. The common tides flowing here about 20 feet, the waters of the river, at low water, are about 12 feet higher than the waters of the sea; at high water, the waters of the sea are about five feet higher than the waters of the river; so that in every tide there are two falls, one outwards and one inwards. The only time of passing with safety is at the time when the waters of the river are level with the waters of the sea, which is twice in a tide, and continues not more than *twenty minutes* each time. At other times it is impassable, or extremely dangerous. This passage resembles that at Hell-Gate, near New-York. The banks of this river, enriched by the annual freshets, are excellent land. About 30 miles from the mouth of this river commences a fine level country of rich intervale and meadow lands, well clothed with timber and wood, such as pine, beech, elm, maple and birch. This river has many tributary streams, which fall into it from each side, among which are the Oromocto river, (by which the Indians have a communication with Passamaquoddy,) the Nashwach and Madamkissick, on which are rich intervalles, that produce all kinds of grain, in the highest perfection.

There is good intervale land also on the Kennebecasis, an eastern branch of the St. John, which empties 3 miles above the falls. It runs nearly parallel with the bay of Fundy, and has its source about 50 miles eastward, near the source of the Petitcodiac, and passes through Sussex vale, a well inhabited and remarkably fertile tract of land, on which stands the academy for the instruction of the Indians, erected under the direction of the "Incorporated Company for the Propagation of the Gospel in New-England, and parts adjacent in

America." This charitable institution was transferred from New-England to this province after the peace of 1783. At this academy 40 Indian children are fed, clothed, and instructed, under the direction of a board of commissioners, of which the governor of the province is president.

This noble river, in its numerous and extensive branches, waters and enriches a large tract of excellent country, a great part of which is settled and under improvement. The uplands, in general, are covered with a fine growth of timber, such as pine and spruce, hemlock and hard wood, principally beech, birch, maple, and some ash. The pines on this river are the largest to be met with in British America, and afford a considerable supply of masts (some from 20 to 30 inches diameter) for the British navy.

There are 3 rivers which fall into the bay of Passamaquoddy; the largest is called by the modern Indians the Scoodic; but by De Mons and Champlaine, Etchemins. Its main source is near Penobscot river, with which the Indians have a communication; the carrying place between the two rivers is but 3 miles. The rivers which fall into Passamaquoddy bay have intervalles and meadows on their banks, and were formerly covered with a large growth of timber, as appears from the remaining large trunks of trees which are still visible. The Indians say, that about 60 years ago, in a very dry season, a great fire destroyed most of the timber on the east side of Passamaquoddy bay, and particularly on the Magaguadavic or Eastern river, which falls into the bay, where it raged with great violence, and spread as far eastward as the river which falls into the St. John, and extended northerly and westerly beyond the Dickwasset or Digdequash river, which falls into the same side of the bay.

Merramichi river, on the northeast coast of New-Brunswick, falls into the head of a bay of the same name. A little above its confluence with the bay, it forms into two branches, and runs through a fertile tract of intervalle; and the land in general in this quarter is well clothed with timber of various kinds. From this river there is a communication with the St. John, partly by land, but principally by water carriage, in canoes. The salmon fishery is carried on to good advantage, and the cod fishery is improving near the entrance of the bay.

Petitcodiac river falls into an arm of the bay of Fundy, called Chignecto channel. From its confluence, after a course of some miles northerly, it takes a western direction; and the Indians have a communication from the head of it with St. John river, by a portage across to the head of Kennebecasis. Memramcook river is eastward of Petitcodiac, and takes a northeasterly direction.

The rivers Ristigouche and Nipisiguit run from west to east into Chaleurs and Nipisiguit bays, which communicate with the gulf of St. Lawrence. The river St. Croix empties into Passamaquoddy bay, and forms part of the boundary between New-Brunswick and Maine.

Bays and Lakes.] The coast of this province is indented with numerous bays and commodious harbors. The principal are Chaleur, Merramichi, Verte, which is separated from the bay of Fundy by a

narrow isthmus of about 18 miles wide ; bay of Fundy, which extends 50 leagues into the country ; Chenigto or Chignecto bay, at the head of Fundy bay ; Passamaquoddy bay, bordering on the District of Maine. At the entrance of this bay is an island, granted to several gentlemen in Liverpool in Lancashire, who named it Campobella. At a very considerable expense, they attempted to form a settlement here, but failed. On several other islands in this bay there are settlements made by people from Massachusetts. Among the lakes in this province, which are very numerous, and as yet without names, is Grand Lake, near St. John river, about 30 miles long, and 8 or 10 broad, and in some places 40 fathoms deep.

Trade, Forts, Animals, Indians, History, &c. See Nova-Scotia.

NEW BRITAIN.

BOUNDARIES, EXTENT AND DIVISIONS, FACE OF THE COUNTRY, SOIL AND POPULATION, ORIGINAL POPULATION, RELIGION, AND CHIEF TOWNS.

Boundaries, Extent, and Divisions.] THIS inhospitable country is separated from Newfoundland I. on the S. E. by the strait of Belle isle. It has the gulf of St. Lawrence, and Lower Canada, S. Hudson's and James' bays, W. and Davis' straits, N. E. It lies between lat. 50° and 62° N. and lon. 58° and 80° W. Length from S. E. to N. W. 1050 ; breadth on an average 550 miles. It is divided by a high ridge of land running N. and S. into *Labrador* and *East Main*.* *Labrador* lies along the N. E. coast upon Davis' straits, from the strait of Belle isle, to cape Chidley, which forms the southern point of the entrance into Hudson's bay. *East Main* lies W. of it, along the eastern shores of Hudson's and James' bays.

Face of the Country, Soil, Population, &c.] This is a rocky, barren, frozen country, and is, consequently, inhabited only by a few savages, whose numbers are unknown, but are proportioned, doubtless, to the scantiness of their means of subsistence ; nor is it probable, from the same cause, that they will hereafter increase. The fresh and salt waters, with a small quantity of game, which the few stunted woods afford, supply the wants of nature.† Along the S. E. coast, near the strait of Belle isle, there are several fishing establishments, connected with mercantile houses in Newfoundland.

Original Population.] The aborigines of Labrador, and of the country lying west of Hudson bay, and north of Churchill river, were Esquimaux and Knisteneaux ; those who inhabited the country south of Churchill river, were Chepewyans and Knisteneaux. The country inhabited by these last nations has been already defined, and their manners and character described.

* M'Kenzie.

† Ibid.

The Esquimaux occupy the whole peninsula of Greenland, the coasts* of Labrador, and the whole northern coast† of America. They are universally believed to be of European origin, for the following reasons.

Their principal settlements were in Greenland and Labrador, and their progress has been only westward.‡ The other American tribes consider them as a totally distinct race of men, and constantly treat them as such. In their complexion, form, and general appearance, in their character, and mode of life, they differ essentially from the other tribes. In all these respects they resemble strongly the Laplanders. The complexion of the other aborigines is red; that of the Esquimaux and Laplanders is tawny.§ The Esquimaux in their persons are short, brawny, and inclined to corpulency. The Laplanders resemble them in these respects. Both nations also have broad faces, flat noses, thick lips, large mouths, black hair and eyes. The dress, food, huts, furniture, canoes, arms, modes of hunting, fishing, cooking, and travelling, bear as strong a resemblance, as the circumstances of the two nations will permit.

The Esquimaux are said to be absolutely without any government. They are the mildest tribe on the borders of Hudson's bay. Murders seldom happen among them. The crime is detestable in their view, and the murderer is forsaken by his former friends, and even by his relations. The women perform the most laborious offices, and eat after the men.

Religion and Chief Towns.] The great body of the inhabitants in these extensive and dreary regions are Pagans. The Moravians have missionaries stationed at Okkak, Nain, and Hopedale, on the N. E. coast, where, from the latest accounts, it appears, that they are laboring with patience and increasing joy and success. The poor Esquimaux "are remarkably diligent in their attendance upon divine worship, and take great delight in every opportunity afforded them to hear the gospel." These missionaries have established schools, which are flourishing.||

Rivers, Lakes, &c.] East Main river, at the mouth of which is East Main factory, Harricanaw river, and another river, name unknown, issuing from the Mistissinny lake, all run from the highlands, W. into the S. E. end of James' bay. There are few other rivers of much size in New-Britain.

* The interior of Labrador was occupied by the Knisteneaux (the *Northern Indians* of Mr. Hearne.)

† Mr. Hearne discovered them at and near the mouth of Copper Mine river, which empties into the Frozen ocean, in lon. 112°; and Mr. M'Kenzie found them at the mouth of M'Kenzie's river, in lon. 135°. He says there can be no doubt that they roam to the western extremity of the continent.

‡ M'Kenzie, II. 304.

§ Hearne, 166, and Leems' Danish Lapland, Chap. 3d.

|| Periodical account of the brethren.

CANADA.

UNDER this name is comprised all the country lying between the United States on the S. and New-Britain and Hudson's bay on the N. ; and between the gulf of St. Lawrence, and a line from Cape Gaspé passing round the W. end of Anticosti I. to the coast of Labrador, on the E. ; to the line on the W. which separates the great *Eastern* and *Western* divisions of British N. America, already described.*

Canada thus defined, is divided into *Upper* and *Lower* Canada.

LOWER CANADA.

CHAPTER I.

HISTORICAL GEOGRAPHY.

EXTENT, BOUNDARIES, NAME, DIVISIONS, ORIGINAL POPULATION, INDIANS, HISTORICAL EPOCHS, RELIGION, GOVERNMENT, POPULATION, REVENUE, MANNERS AND CUSTOMS, LANGUAGES, LEARNING, CITIES AND TOWNS, INLAND NAVIGATION, MANUFACTURES AND COMMERCE.

Extent.] LOWER Canada lies between lon. $59^{\circ} 30'$ and 92° W. and between lat. 46° and 52° N. Its greatest length from E. to W. is 1100 miles. Its greatest breadth is about 350 miles ; though the average breadth is much less.

Boundaries.] Bounded N. by New-Britain, James' bay, and New South Wales ; E. by the gulf of St. Lawrence ; S. E. and S. by New-Brunswick, Maine, N. Hampshire, Vermont, N. York, and Upper Canada ; W. it terminates in a point a little W. of lake St. Joseph.†

The division line between Upper and Lower Canada commences at a stone boundary on the north bank of the lake St. Francis, in the river St. Lawrence, lat. 45° , at the cove, west of Pointe au Boudet, and pursues a northerly course till it strikes the Ottawa river ; thence it ascends that river to the head of lake Temiscaning or Tinnis-Kamaings ; and thence continuing a W. N. W. course to lon. 92° W. about 30 miles W. of lake St. Joseph.

Name.] According to father Hennepin, "the Spaniards were the first who discovered Canada ; but at their first arrival, having discovered nothing considerable in it, they abandoned the country, and called it *Il Capo di Nada*, that is, a *Cape of Nothing* ; hence by corruption sprung the word CANADA."

* Page 145.

† Thompson's Atlas, 1817.

Divisions.] This province in 1812 was divided into 21 counties, viz.

Gaspe	Richelieu	York	St. Maurice
Cornwallis	Bedford	Montreal	Hampshire
Devon	Surrey	Effingham	Quebec
Hertford	Kent	Leinster	Northumberland
Dorchester	Huntingdon	Warwick	Orleans
Buckinghamshire			

These counties are subdivided into parishes. A part of Lower Canada, bordering on Vermont, Memphremagog lake, N. Hampshire and Maine, S. and S. E. ; and having the French settlements or seigniories, on the St. Lawrence, N. is called *The Townships*. It is laid out in townships, generally ten miles square ; most of them are settled with emigrants from the U. States. The principal town is Stanstead, on L. Memphremagog, which has about 3000 inhabitants ; from which are formed 7 military companies. They have a meeting house, and 6 school houses. In all the townships, are 2 Congregational, 1 Episcopal, and 7 Methodist and Baptist ministers ; 4 schools supported by government, and many others by the inhabitants. The soil and climate generally good.

Original Population.] Various tribes of Knisteneaux Indians occupied the whole country of Lower Canada, at the period when it was settled from Europe. During the American war, the Mohawks, one of the Six Nations, or Iroquois, removed from the Mohawk river, in New-York, and planted themselves in this province.

Historical Epochs.] 1497. Discovered by John Cabot, a Venetian, in the service of the English.

1534. James Cartier, a Frenchman, under commission of Francis I. explored the gulf of St. Lawrence, and the next year ascended the river, and wintered at St. Croix, where he erected a wooden cross.

1603. A patent for an exclusive trade was granted to Sieur de Monts, who employed Champlain to make further discoveries in Canada.

1608. Champlain sailed up the St. Lawrence as far as a strait, called by the Indians Quebec, where on the 3d of July he began to build, and here he passed the following winter. At this time the settlement of Canada commenced.

1628. A company of rich merchants, 107 in number, was established by patent for an exclusive trade.

1629. Quebec was taken by sir David Keith ; and surrendered to the French by the treaty of St. Germain.

1642. The company above named acquired a right of soil.

1663. The charter of this company was revoked.

1664. Canada was put under the government of the West-India company.

1690. Sir William Phipps, with an armament from Boston, made an unsuccessful attack on Quebec.

1711. Another like attack was made on this city, by general Hill and admiral Walker, from England.

1759. Sept. 13. An English army under general Wolfe made a successful attack on Quebec, which surrendered on the 18th.

1760. The whole province of Canada surrendered to general Amherst, and was confirmed to Great-Britain by the treaty of 1763, under whose dominion it has since continued.

1775. Canada was invaded by a body of provincial troops under general Montgomery; Montreal was taken, and an unsuccessful attempt made upon Quebec, in which the general was slain and his troops routed.

1778.* An act was passed by the parliament of Great-Britain, expressly restraining itself forever, from imposing any taxes or duties in the colonies, except for the regulation of trade, the produce of which taxes or duties to be disposed of by the provincial assemblies.†

1784. Canada was made the seat of a general government, to which the other provinces were, in a manner, made subject.

1791. Upper and Lower Canada were divided, and each constituted a distinct government independent of the other.

Religion.] A large proportion of the inhabitants are Roman Catholics. In 1811, there were 15 clergymen of the church of England in the province, with a bishop at their head, and about 140 Roman Catholics, who also have a bishop, and two respectable seminaries, one at Quebec, and the other at Montreal. The Catholics had at this time 11 missionary stations in different parts of the British dominions, supplied with missionaries. The other denominations of Christians, which are fast spreading in this province, are Presbyterians, or Congregationalists, Baptists, and Methodists; but the want of able and pious religious teachers is deeply felt, especially in the townships lately settled on the northern borders of Vermont.

By the constitution the king may empower the governor to make allotments of land out of the crown lands already granted, for the support of a protestant episcopal clergy in each province; and one seventh of the amount of all future grants is appropriated to that purpose.

Government.] Canada is a province belonging to Great-Britain. It has, however, a government of its own.

The governor general of British America, as he customarily resides in this province, is its ordinary governor. He is appointed by the crown. A lieutenant governor chosen in the province executes that office in his absence. The governor fixes the time and place of holding the elections and the assembly, and has power to prorogue and dissolve the assembly at pleasure.

The legislature is made up of a legislative council and an assembly, who, with the consent of the governor, have power to make laws. The legislative council is composed of not less than 15 members, from Lower, and 7 from Upper Canada, who hold their seats for life; unless forfeited by 4 years continual absence, or by swearing allegiance to some foreign power. They are summoned by the governor general with the approbation of the king. The house of assembly

* In the 18th year of George III.

† Quebec Almanac, &c. for 1811.

consists of not less than 16 members* for Upper, and not less than 50 for Lower Canada, chosen by the freeholders in the several towns and counties : the council and assembly are to be called together, at least once in every year, and every assembly is to continue four years, unless sooner dissolved.

No bill becomes a law till it has passed both houses, and received the king's assent through the governor. This must be given within two years, or the bill cannot afterwards become a law. The king in council may annul any law, to which his assent has been officially given, within two years after a copy of the law is received by the secretary of state.

The governor, with some of the council selected by the crown, constitute the high court of appeals in the province.

Population.] The number of inhabitants in Lower Canada, in 1783, was by actual enumeration 113,012. The number, in 1806, was, according to Mr. Heriot, 150,000. In 1811, they were estimated at between 200,000 and 300,000,† The greater part of these were descendants of the original French colonists. In the last 7 years, both provinces have been peopling fast by immigrations both from Europe and the U. States. The latest accounts‡ state, that in the Lower province are 400,000, and in the Upper 200,000.

Indians.] The number of Indians in both the Canadas has been estimated at from 60,000 to 100,000, and from 20,000 to 30,000 warriors. Smith reckons, that in Sept 1812, there were 20,000 warriors in the British interest. Seven tribes were in the settled parts of Canada. Six of these live on the Grand river, viz. the *Mohawks, Chippewas, Delawares, Massasaugas, Tuscaroras, and Senecas*. Each of these nations have their king or chief, and their village and council house. They also speak a different language, yet understand each other very well. These six nations of Indians on the Grand river, in number 1976, have attained to a tolerable degree of civilization. They speak the English language with some propriety, and have schools and the gospel continually among them. The school teachers are paid by the king, and also their preacher. A number of these Indians have very good English learning, and are very industrious : some of the families have raised in one year 300 bushels of wheat. They are very kind to strangers, and will give the best of their food or drink to them. They are all firmly attached to the interest of the British government, and are exercised in the military use of arms, several times in the year. They can muster 600 warriors ; though the Massasaugas are not good to fight, nor for any thing else.

Besides those of the Mohawks on the Grand river, there is a considerable number of this tribe living near the bay Quantie, on the north side, about the middle. They own a tract of land 12 miles square, and have also schools and the gospel among them.

* In 1812 the number was 26, two thirds of them natives of the U. States. Clergymen are not eligible to the legislature.

† Quebec Almanac for 1811.

‡ New Monthly Mag. 1818.

There is a small tribe of Indians, called the *St. Regis* Indians, living on the river St. Regis, near the lower part of the province. There is also a small tribe, called the Moravian Indians, living in the western district. They have the gospel preached them by the Dutch Moravians, among whom they live. They are of the Delaware tribe. On some islands near, and in, lake Huron, there is a considerable number of Indians, called the *Huron* Indians, who are great warriors.

Near the head of the Ottawa river, there is a small tribe of Indians, called the *Nepisingui* Indians. They live on a lake of the same name, and were once converted to the Catholic religion, at which time they were a numerous tribe. They are of the Algonquin nation, some of which now reside about lake Superior.

The Canadian Indians cost the British crown about 3000*l.* sterling a year. This sum is expended in furnishing them with fire-arms and ammunition, by means of which they kill their game; also in blankets and clothes, bread, meat, and tobacco. These things are called *gifts* from the king, but are chiefly purchased by the interest of funds in England belonging to the Six Nations, for land sold by them to the king.

The most of the Indians in the province of Upper Canada have been converted from idolatry, to the belief of the Christian religion, by the Roman Catholic priests, while the province belonged to the French; but since it has been governed by the British, there has been less attention to the religious instruction of the Indians than formerly. Those taught in the Christian faith are Protestants. The young Indians care little for any religion.*

Army.] The militia of Lower Canada is organized in 30 divisions, with their proper officers. Eight of these divisions are within the district of Quebec, 3 in that of Three Rivers, 6 in that of the Eastern townships, and 13 in that of Montreal.

Revenue.] The only revenue to Great-Britain arises from an advantageous commerce. The expenses of the civil list amount to 20,000*l.* sterling, one half paid by the province, the other by Great-Britain; of the military establishments, with repairs of forts, to 100,000*l.*; and of presents to the savages, and salaries to officers employed in trading with them, to 100,000*l.* more. The advantages of the commerce are thought to be more than a counterbalance to these expenses.

Manners and Customs.] The manners of the Canadians in the larger towns are tinctured with French levity. The French inhabitants, generally, both men and women, are extremely ignorant and superstitious, and blindly devoted to their priests. Many of those, who are employed in the fur trade, are sunk far below the aborigines; but in consequence of the emigration from England and the United States, an increasing spirit of industry, and the establishment of schools and Christian churches, morals are improving.

* M. Smith's View of Canada, 1818.

Languages.] The French is universally spoken. The English is restricted to the British and American settlers.

Learning.] There are two universities, one at Quebec, the other at Montreal, both belonging to the Roman Catholics, and respectable institutions, well endowed, and furnished with learned professors. By an act, 41, Geo. III. an English school is established in each of the principal villages of the Lower province.—For more information on this head, see *Montreal*.

Cities and Towns.] QUEBEC is the capital of the province. It stands on a point of land on the N. W. side of the river St. Lawrence, lat. $46^{\circ} 48' 39''$ N. lon. $71^{\circ} 20' 6''$ W. at its confluence with the river St. Charles, and about 320 miles from the sea, 364 from Boston, 797 from Halifax, 419 from Albany, 180 from Montreal.* The town is divided into Upper and Lower. The Upper town stands on a high limestone rock; is of great natural strength, and extremely well fortified. The highest part of the fortifications, which is called cape Diamond, is 400 or 450 feet above the river, and the precipice is nearly perpendicular. The northeast part of the Upper town, which is near the point formed by the two rivers, is on a similar precipice, nearly or quite 200 feet high, and from which you look down upon the Lower town, as from a very high steeple. In case of attack from the harbor, the cannon of the Upper town are discharged far above the tops of the houses in the Lower town; and so perfectly is the garrison defended from shipping by the height of the place, that no breast-work is necessary at the grand battery, which overlooks the harbor. The ascent from the Lower town to the Upper is crooked, steep, and defended by massy gates and strong walls. Carriages, however, of all sorts, ascend without difficulty. The Lower town is situated upon low land, at the foot of the rock, which has been gradually gained from the river. The streets are irregular, uneven, narrow, and some of them unpaved. The houses are almost universally of stone, small, ugly, and inconvenient. The fortifications are extensive, but irregular. A large garrison is maintained, but 5000 soldiers would be necessary to man the works. The number of inhabitants, in 1806, according to Heriot, was 15,000. Others, who have lately visited this city, say, 12,000. Two thirds of them are French; and the presence of the legislature, the courts, and the garrison, render the town gay and lively. The Lower town is inhabited principally by tradesmen and sailors. The rock which separates it from the Upper, extends, with a bold and steep front, a considerable distance westward, along the St. Lawrence. The Upper town contains some good houses, particularly the *chateau* of the governor, which is a noble edifice. There are also three or four other public buildings, large, expensive, and of a respectable appearance. This part of the town frequently suffers from a scarcity of water, which is always abundant in the Lower. The monasteries are almost extinct; yet there are three nunneries. The

* Quebec Almanac for 1811.

markets are well supplied, and the little carts are often drawn by dogs. The St. Lawrence, opposite the town, is a mile wide. A little below, it widens to 4 or 5 leagues, and continues that width to the sea. It forms here a safe and commodious basin for ships, and is from 20 to 25 fathoms deep. If Mr. Heriot's estimate of the population of the town is correct, its growth for some time past has been rapid; for in 1784 it contained only 6,472 inhabitants. The surrounding country presents a most sublime and beautiful scenery; and the banks of the river, between Quebec and Montreal, furnish a pleasing succession of neat country seats and flourishing farms.

MONTREAL, the second city in rank in Lower Canada, was originally called *Villa Marie*. It stands on the east side of an island in the river St. Lawrence, which is 30 miles long, and 12 broad. In the middle of the island is a high mountain, which the French called *Mont-real*, a name which was afterwards transferred to the city and island. The town is 200 miles below lake Ontario, and 180 miles above Quebec, in lat. $43^{\circ} 35'$ N. lon. $73^{\circ} 11'$ W. at the head of ship navigation. The St. Lawrence is 3 miles wide at this place. The city forms an oblong square, divided by regular streets, and was surrounded by a strong wall, built by order of Louis XIV. The city stands, in a considerable part, on rising ground. Most of the houses are badly built. Formerly all the houses might be seen from the harbor, as the hill on which the town is built falls gradually to the water: but the town has lately so increased, is so compactly built, and so extended, that this is not now the case. Before the town is a perpendicular bank about 10 feet high, extending nearly half a mile on the river. The city and suburbs contain (1818) from 2500 to 3000 houses, built of stone, covered with cement, and about 25,000 inhabitants. By some, however, the population is thought to be but 13,000. There is a superb French cathedral, built in 1725, now in elegant repair, and two nunneries of the black and gray order. The court house and jail are handsome buildings. The monument, 50 feet high, erected in 1808, in memory of Lord Nelson, is a fine object. In the southern part of the city is a college, under the care of the catholic clergy, containing (in 1818) 200 students. A large new college edifice of stone was erected in 1817. Here are four protestant churches, for Episcopalians, Presbyterians, Baptists, and Methodists.

The chief trade of the city is in furs; though, during the American embargo, and since, its foreign trade was very much increased. A regiment of soldiers is stationed here. The British northwest company, which has proved a formidable rival in the fur trade to the Hudson bay company, is composed principally of Montreal merchants.

TROIS RIVIERES is pleasantly situated on the northern side of the St. Lawrence, 90 miles southwest of Quebec, and the same distance from Montreal. It is but thinly inhabited, though commodiously situated for the fur trade, and was formerly the seat of the French government. It is the great resort of the savages, who come down the Three Rivers, to dispose of their skins and furs. The inhabit-

ants are generally rich, and have elegant and well furnished houses, and the country round wears a fine appearance. In this town is a large parish church, a hospital, and female academy. It sends two members to the assembly. Two islands at the mouth of the river produce the appearance of three rivers; hence its name: lat. $46^{\circ} 19'$ N. lon. $72^{\circ} 30'$ W.

Beauport is a village about 6 miles north of Quebec. It contains about 150 houses of stone and wood. There is a handsome Catholic church, with three spires. The mountains of this name are the grandest in Canada. They commence 15 miles W. of the village, and extend N. E. along the northern bank of the St. Lawrence, probably to its mouth. The peaks are 500 to 1000 feet high.

La Prairie is a little village on the opposite side of the river to Montreal.

Sorelle lies 45 miles below Montreal, and contains 100 scattered houses. Its chief business is ship-building.

Inland Navigation.] Probably no country in the world has equal advantages furnished by nature for an extensive and easy inland navigation as N. America. In Canada there are two routes westward to fort Chepewyan, the great rendezvous of the western traders, situated near the southwest extremity of the lake of the Hills, in lat. $58^{\circ} 40'$ N. lon. $110^{\circ} 30'$ W. The southern is up the St. Lawrence and lake Ontario, and up Niagara river, 7 miles to Queens-town, where there is a portage of 6 miles, to Chippawa. Thence merchandize is transported in batteaux 18 miles to fort Erie, at the head of Niagara river, whence it is shipped up lake Erie, Detroit river, lake St. Clair, Huron river, and lake Huron, to the falls of St. Mary. The other route is up the Ottawa to the mouth of Little river, up that river 45 miles; thence by land to lake Nepisingui 10 miles; thence down that lake and French river, and across by the northern shore of lake Huron, to the falls of St. Mary. This last route is alone taken by the men employed in the fur trade. The other is taken to transport merchandize for the western country to Detroit and Michilimackinac. The route from the falls of St. Mary, westward, has been already described. A canal is in contemplation, from the head of the Twelve Mile Creek, to the Chippewa rivers, by which to connect the waters of lake Ontario with those of lake Erie. The ground has been surveyed for this canal, and the level taken. The labor and expense it is said will not be great. Through this canal, should it be made, will be conveyed the articles which now pass up the Niagara, are disembarked at Queenstown, and carried 9 miles, by land, to Chippawa around the Niagara Falls, at great expense. Another canal is proposed to connect La Chine with Montreal. These are splendid projects, intended by the Canadians to counteract the effects of the grand New-York canal on their commerce.*

The river Sorelle connects Lake Champlain with the St. Lawrence between Montreal and Quebec, and furnishes the former of these

* See Montreal Gaz. Sept. 23, 1818.

towns an advantageous connexion with the northern parts of New-York and Vermont.

Manufactures and Commerce.] Ship-building is carried on at Quebec and Sorelle with considerable success. Flour, biscuit, and pot-ashes, are extensively manufactured for exportation. The sugar consumed in the interior is manufactured from the sap of the maple. A few coarse linen and woollen cloths are made for home consumption.

The imports of Canada, before the conquest by the British, in the most flourishing years, amounted to 160,000*l.* sterling, and its exports to 80,000*l.* Twelve vessels only were engaged in the fishery, and six in the West-India trade. The exports, at that time, consisted wholly of furs and fish. In 1802 the exports exceeded half a million sterling. Besides furs and fish, there were exported in that year 1,010,000 bushels of wheat, 38,000 barrels of flour, 32,000 cwt. of biscuit, large quantities of pot-ashes, and considerable quantities of American ginseng. In the export of these articles 211 vessels were employed, amounting to 36,000 tons. The fur trade and fisheries also have greatly increased.*

The fur trade has become a very interesting object. The north-west company was formed in 1783. They employ in the concern 50 clerks, 71 interpreters and clerks, 1120 canoe-men, 35 guides, and about 140 canoes. Each canoe will carry about 3,400 lbs. weight, and is navigated by 8 or 10 men. These canoes compose two fleets, each of which starts every other year from Montreal, loaded with coarse linen and woollen clothes, milled blankets, arms, ammunition, tobacco, coarse sheetings, thread, lines, twine, hardware, silk and cotton handkerchiefs, hats, shoes, stockings, calicoes, printed cottons, &c. obtained from England, and spirituous liquors and provisions purchased in Canada. The English goods are ordered in the October but one preceding, are shipped from London in March, arrive in Montreal in June, and are made up in the course of the following winter and spring. The canoes leave Montreal in May, arrive in the Indian country and dispose of the goods for furs in the winter; which arrive at Montreal in September, are shipped for London, where they are sold in March and April, and paid for in May and June. Nearly four years, of course, elapse from the first purchase of the goods, to the time of selling the furs.

The produce of the year 1798 consisted of the following furs and peltries:

106,000 Beaver skins	6,000 Lynx skins
2,100 Bear do.	600 Wolverine do.
1,500 Fox do.	1,650 Fisher do.
4,000 Kitt Fox do.	100 Raccoon do.
4,600 Otter do.	3,800 Wolf do.
17,000 Musquash do.	700 Elk do.

* The substantial articles of export, in 1810, were peltries, lumber, flour, pork, and beef. The vessels cleared in that year were 661. Their tonnage amounted to 143,898; their seamen to 6,578.

32,000 Marten skins	750 Deer skins
1,800 Mink do.	1,200 Dressed do.
500 Buffalo robes, and a quantity of castorum.	

That of 1810 consisted of the following :

98,523 Beaver skins	2,536 Fisher skins
10,751 Bear do.	39,521 Raccoon do.
2,645 Otter do.	19 Wolf do.
9,971 Musquash do.	534 Elk do.
554 Marten do.	32,551 Deer do.
169 Mink do.	2,428 Cased and open Cat, do.
327 Lynx do.	1,833 Swan do.
517 Wolverine do.	2,684 Hare do.

Since 1810 we have no authentic information on this article.

CHAPTER II.

NATURAL GEOGRAPHY.

CLIMATE AND SEASONS, FACE OF THE COUNTRY, SOIL AND AGRICULTURE, RIVERS, LAKES, MOUNTAINS, BOTANY, MINERALOGY, NATURAL CURIOSITIES.

Climate and Seasons.] WINTER commences early in November, and lasts till April. The cold is so intense that the largest rivers are frozen over, and even the mercury in the thermometer often reduced to a solid state. The ice on the rivers is usually two feet thick, and that close to the banks of the St. Lawrence, called *borderage*, is commonly 6 feet. The snow usually lies from 4 to 6 feet deep. The spring is extremely short, and vegetation surprizingly rapid. The thermometer, in July and August, frequently rises above 80°, and sometimes above 90°.

Face of the Country.] Lower Canada is every where hilly, and in many places mountainous. Far the greater part of the country is still covered with forests.

Soil and Agriculture.] The soil is generally a loose, blackish earth, ten or twelve inches thick, covering a bed of clay. It is very fertile. Marl is employed as a manure, and is found in great abundance on the banks of the St. Lawrence. Wheat is raised in large quantities for exportation. Barley, rye, and other sorts of grain, are productive. A little tobacco is raised for private use. Culinary vegetables thrive very well. The meadows, which are well watered, yield excellent grass, and feed great numbers of large and small cattle.

Rivers.] The St. Lawrence has been already described.* The Ottawa, or Grand river, rises in Upper Canada, near the head of the lake Abitibbe, a branch of the Moose. About 120 miles from its source it runs through the southern end of lake Tomiscanning, and about 80 miles below, receives Little river from the south. It empties into the N. W. side of the St. Lawrence, at the upper end of Montreal island. Its course is 600 miles, in a direction, on the whole, E. S. E. From lake Tomiscanning to within a little distance from its mouth, it divides Upper and Lower Canada.

The Sorelle and the St. Francis fall into the St. Lawrence from the south, between Montreal and Quebec.

The Saguenai, 120 miles long, and Black rivers, and many smaller streams, fall into it below Quebec, from the north.

The Connecticut rises and runs a little distance in this province.

The river St. John is formed of several branches, which meet about lat. $47^{\circ} 30'$ N. lon. 66° W. and passes S. E. and S. a little to the east of the N. E. corner of the United States, into the province of New-Brunswick, and thence into the bay of Fundy.

Lakes.] Tomiscanning and Abitibbe in the west, and Mistisinnny in the north, are the only lakes whose names we are acquainted with in this territory.

Mountains.] There are some mountains around the head waters of St. John's river, and on the south bank of the St. Lawrence near its mouth.

Botany.] The trees of New-England, with the exception of the various species of oak, are found in both Canadas, but generally inferior in their size. Evergreens predominate in the forests.

Zoology.] See this article under the head *United States*.

Mineralogy.] The mineralogy is of little consequence. Even iron is rare. Large quantities of black sand are found both on the northern and southern shores of lake Ontario and Erie. There are said to be lead mines which produce a little silver.

Natural Curiosity.] The falls of Montmorency are situated upon a river of the same name, which empties into the St. Lawrence on its northeasterly side, in the district of Beaupour, about 3 leagues below Quebec; and from their beauty, magnificence, and astonishing height, merit the attention of the admirers of nature. They are 20 rods from the confluence of the two rivers, and may be distinctly viewed as you sail down the St. Lawrence. The banks of the Montmorency are perpendicular, both above and below the falls, and are composed of a *soft stone*, resembling that brought from Connecticut river. They are perfectly regular, and nearly as smooth as if they had been under the hand of the artist. The river is 50 yards wide, and so rapid that the quantity of water is very great.

* P. 107. It has been thought incorrect to say that this river conveys more water to the ocean than any other river on the globe, except the Amazon and La Plata. The Mississippi, and several others, are supposed to be much deeper, and to convey a greater quantity. The fact that it passes through so long a chain of lakes, which spread a wide surface for evaporation, tends rather to diminish, than increase the quantity of its water.

About 50 feet above the perpendicular cascade, the water begins to tumble over rocks at an angle of 45° , till it arrives at its great leap ; where it falls in one unbroken, uninterrupted sheet to the bottom. The height of the perpendicular fall is 240 feet. If these falls are inferior to those of Niagara in grandeur and sublimity, they certainly rival them in beauty, and excel them in height.

UPPER CANADA.

SITUATION, EXTENT AND BOUNDARIES, CIVIL DIVISIONS, SETTLEMENTS AND TOWNS, FACE OF THE COUNTRY, SOIL, PRODUCTIONS AND AGRICULTURE, RIVERS, LAKES, AND BAYS, POPULATION, MILITIA, GOVERNMENT, STATE OF LEARNING AND SCHOOLS, RELIGION, MORALS, COMMERCE, MANUFACTURES, ROADS. ANIMALS, BIRDS, REPTILES AND FISHES, MINERALS AND MINERAL WATERS.

Situation, Extent and Boundaries.] UPPER Canada is a long and narrow strip of territory, extending from lake St. Francis, in the river St. Lawrence, lon. 74° W. lat. $45^{\circ} 10'$ N. on the S. E. to lake Winnipeg, lon. 98° W. lat. 54° N. on the N. W. about 1200 miles. It has Lower Canada and New South Wales on the N. E. and the divisional line between Canada and the U. States, which passes through the lakes Ontario, Erie, Huron, Superior, up to the Winnipeg, on the S. W. On the N. W. it is bounded by the waters which connect lake Winnipeg with Hudson's bay. The breadth is from 200 to 500 miles.

Civil Divisions.] Upper Canada is divided into *eight* districts, which are subdivided into 24 counties, containing 156 townships, generally 12 miles square, each of which is divided into 14 concisions, in the whole 2184 ; which are again subdivided each into 24 lots of 200 acres each, making 32,416 lots in all, or 10,483,200 acres. So much has been surveyed.

The districts are,

1. The *Eastern*, on the St. Lawrence and Ottawa rivers, in the N. E. corner of the province, inhabited by Scotch and French.
2. *Johnstown*, next, S. W. as you proceed up the St. Lawrence S. W.
3. *Midland*, comprehending Kingston, and the beautiful peninsula between the bay of Quinti or Quantie and lake Ontario. This district is large, fertile, and thick settled with rich farmers.
4. *Newcastle* lies next, to the S. W. from Quinti bay, 50 miles in length.
5. *Home*, adjoining the last, to the S. W.

6. *Niagara*, S. of Home, on the peninsula between lakes Ontario and Erie. It is divided into Lincoln and Halderman counties. The latter is on Grand river, and in possession of the Six Nations of Indians already mentioned.*

7. *London*, extending from the Indian lands on Grand river, 90 miles, along the N. shore of lake Erie, between 41° and 42° N. lat. It is a fine wheat country, healthy, and increasing in population.

8. *Western district*, extending from *London* to the western end of the province. It has some fine plains, inhabited for more than 100 years by the French.

The counties are

Glengary	Ontario	Durham	Kent
Stormount	Addington	York	Middlesex
Dundas	Lenox	Lincoln	Simcoe
Grenville	Prince Edward	Norfolk	Halderman
Leeds	Hastings	Suffolk	
Frontenac	Northumberland	Essex	

Settlements.] In the E. part of the province, on the St. Lawrence, the settlements do not extend back from the river. From Kingston, S. W. for 50 miles, including the peninsula of Quintj bay, and the lake, are continued settlements. For 100 miles further on, the settlements do not extend more than 6 miles from the shores of the lake. N. of York, particularly on what is called Yonge street, which extends N. to lake Simcoe, farms are numerous and well cultivated. W. of York, 20 miles, there are few settlements; thence, on Dundas street, 20 miles farther, is thickly settled. Goot's Paradise, at the head of Burlington bay, consists of fine, rich, sandy plains, is populous for 7 miles from the shore, to the foot of the slope. From the top of this slope, 15 miles W. there are fine settlements in two townships. About 40 miles up Grand river, is a flourishing Dutch settlement, in Brant's township. London district, already described, has many settlements, and its population is fast increasing. Fronting the Ottawa river, 20 townships, rapidly settling, had been laid out before the year 1811.

Towns.] York, formerly *Toronto*, the seat of government, stands on York harbor, on the north side, near the west end of lake Ontario, lat. 43° 35' N. nearly opposite the mouth of Niagara river, which is 34 miles distant by water, and 90 by land. A long and narrow peninsula, called Gibraltar point, forms and embraces this harbor, securing it from the storms of the lake, and rendering it the safest of any on the coast. The town is projected to extend a mile and a half in length, from the bottom of the harbor, along the lake. Many houses are already completed, some of which display considerable taste. It was laid out in 1791. Within the last ten years its growth has been rapid.

Kingston is in lat. 44° 8' N. lon. 75° 41' W. 65 miles above Prescott. It stands at the head of the St. Lawrence, on the north shore, opposite Wolf island, near the bottom of lake Ontario. It occupies the site of fort Frontenac, was laid out in 1784, and is of considerable size. It has an excellent harbor, in which the king's shipping on

lake Ontario winter. It has an Episcopal church, a hospital, and a barrack for troops. It is nearly opposite Sackett's harbor, 27 miles distant, in a straight line; 34 by the road, and 36 by water or ice. Presque isle harbor, on the U. States side, is 75 miles S. E. from Kingston.

Newark stands on the west bank of Niagara river, at its mouth, in lat. 43°. It extends a mile along the lake. It contains two churches, one Episcopal, the other Presbyterian.

The town of Niagara is opposite Niagara fort, which is on the American side of the river, which is here 1200 yards wide. Prescott village and fort are on the N. bank of the St. Lawrence, opposite Oswegatchie river, and Ogdensburgh; where the river is 2 miles wide.

Queenstown stands on Niagara river, 7 miles above Newark. It contains an Episcopal church.

Chipawa is a little village 3 miles above the falls, and 6 above Queenstown.

Elizabethtown, in the district of Johnstown, near lake Ontario, was settled in 1784, chiefly by British people. The London missionary society have a missionary established here.

Face of the Country, Soil, Productions and Agriculture.] There are no mountains in this province, and but few high hills, except the elevated ridge (in some places nearly 500 feet almost perpendicular) which crosses Niagara and Genessee rivers, already described.* S. W. of Niagara falls, 30 miles, are the *short hills*, of good soil, and capable of cultivation to the top. Along the N. shore of lake Ontario, and near it, the ground gradually rises to a considerable height, whence, to the N. the country is pretty level. At no great depth in the earth, are plenty of stones, (in many places limestone,) but none on its surface. The soil of this province is generally very good, particularly W. and S. W. of the bay of Quinti, around the N. shore and head of L. Ontario, and along the W. bank of Grand river. The timber of the lower part of the province is chiefly hemlock, birch, and beech; that of the middle part, on L. Ontario, beech, sugar maple, and white pine; W. of Grand river, white pine, elm, bass, black walnut, oaks, chesnut, balm of Gilead, &c.

In the lower parts of the province, in the bottom of some shallow lakes, grows a species of rice, the stalk like oats, the kernel of the size of the common rice, not so white, but better tasted, and more easily cleaned. The Indians collect it in their canoes, and sell it, in considerable quantities, to the inhabitants. The fruits, grains, &c. which grow in the northern parts of the United States, grow here. Agriculture is yet in its infancy, but fast improving. Wheat, and other grains common in the northern states, are successfully cultivated here.

Rivers.] The St. Lawrence and the Ottawa have been described. The latter runs the first 120 miles of its course, wholly in this province, and the Moose and Albany rivers the first part of theirs.

The Trent, from the west, falls into lake Ontario above Kingston, discharging the waters of Rice lake. The Thames is a considerable

stream, which, from the east, runs into lake St. Clair. The Chipawa falls into the Niagara at Chipawa. Holland river connects lake Simcoe with lake Huron; as does French river, lake Nipissing. The Michipicoten falls into the N. E. corner of lake Superior; and the Nipigon into the northern side, pouring in the waters of lake St. Anne.

Lakes.] Half of lakes Ontario, Erie, St. Clair, Huron, Superior, Rising lake, lake of the Woods, and lake Winnipeg, belong to Upper Canada. Lake Nipissing lies north of Huron, about 40 miles long and 15 wide, and lake Simcoe east of it, about as large. Lakes St. Anne, Sturgeon, St. Joseph, and several others, lie N. and N. W. of lake Superior.

Bay] The bay of Quinti is a very long, narrow harbor on the northern shore of lake Ontario. It is formed by the county of Prince Edward, which is a large peninsula, running out eastward from the northern shore of the lake. The eastern end of the peninsula is called Point Pleasant. From Point Pleasant to the western end or head of the bay is 50 miles. It is navigable the whole distance for the vessels of the lake. The peninsula forms three townships, Ameliasburgh, Sophiasburgh and Marysburgh. At no great distance from the commencement of the peninsula, it becomes so narrow as to form a short portage from the head of the bay into the lake. The towns, which front the north side of the bay, are Sidney, Thurlow, Adolphustown, and Fredericksburg. A little west of the portage, Trent river supplies the bay with the waters of Rice lake. A canal has been proposed across the portage, which would convert the peninsula into a large island.

Climate.] On lakes Ontario and Erie, the climate is temperate, and observed to be warmer in winter, than in the same latitudes E. of the lakes, and is less liable to sudden changes. Westerly winds prevail in winter, and northerly in summer. Snow storms come uniformly from the N. E. The coldest winds are from the S. E. and S.; rain from the N. and N. W. Hurricanes and tornadoes are not common. Along the N. shore of L. Ontario, are appearances which have given rise to a conjecture that "about 600 years ago, all the timber was torn up by the roots," in a tornado.

Population.] The number of inhabitants, in 1783, was 10,000, in 1806, 80,000,* in 1811, 136,000, not including Indians.† The inhabitants are composed chiefly of emigrants from New-England and New-Jersey. Some of the settlers are from Great-Britain. Many of the towns have the names of the towns in New and Old England.

Militia.] The number of men liable to do military duty, from the age of 16 to 60, including Indian warriors, in the province, in 1811, was 22,660.

Government.] In 1791, the British Parliament divided what was then called the *Province of Quebec*, into Lower and Upper Canada, and gave to each a government to suit their respective inhabitants, the former being chiefly French, the latter English. The constitution of this province provides for the creation of a legislative council and assembly. The king appoints the governor, and he, with the king,

* Heriot's Travels.

† Smith.

the legislative council. The freemen elect the assembly, who make laws for the welfare of the people, which are not valid without the sanction of the governor and council: on the other hand, no law is valid, "without the advice and consent of the legislative assembly." The number of members of assembly, in 1812, was 26, two thirds of them natives of the U. States. Slavery was abolished by act of assembly, 1793.

State of Learning and Schools.] The great body of the people in this province are very deficient in their education, owing to the poverty of many of the new settlers, and their sparse settlements. But since these obstacles have been removed, more attention is paid to literary improvements, and many schools are supported. There is still great room for improvement, and competent instructors, of good character, are much wanted, and would be well supported, especially a few of liberal education. A public free school is kept in every district, 8 in all, by order of the king, who gives to each instructor 100*l.* sterling a year.

Religion.] The inhabitants of this province, generally, would class themselves as belonging to one or other of the following denominations of Christians, viz. 1. Methodists, who are the most numerous, and scattered over the whole province. 2. Baptists, of whom there were, in 1813, 1000, gathered in 15 churches, with 11 preachers. 3. Episcopalians, 6 ministers and congregations. 4. Presbyterians, 10 congregations, and 7 ministers. 5. Quakers; or Friends, 5 congregations. Beside, there are some Dutch *Mennonists*, (probably miscalled, for *Menonists*;) Tunkers, a few Catholics, and some others, who all enjoy religious liberty, and the Quakers, Menonists and Tunkers are exempted from military duty. The episcopal clergy are paid by the king. "One seventh part of all the land in Upper Canada, by the constitution, is appropriated to the maintenance of a protestant (*episcopal*, it is presumed) clergy within the province." This land lies in 200 acre lots, which are leased, and the rents given to the clergy, to the amount of 800 dollars each a year.

Morals.] The main body of the people are represented as peaceable, just, generous in their intercourse, benevolent and kind to each other. Instances of theft, which is a capital crime here, are very rare, as are other gross offences. Profane swearing is seldom heard; and the sabbath in many parts regarded. Drunkenness is rare.

Commerce.] In the 8 years preceding 1813, the exports of Lower and Upper Canada amounted annually to 2,500,000 dollars; the greater part from the Upper province. During the years 1802, '3, '4 and '5, the average quantity of wheat exported was 1,012,000 bushels, 40,000 barrels of flour, 34,000 weight of biscuit, beside potash, furs, timber, &c. In 1809, '10, and '11, timber and casks were sent to England, yearly, to the amount of 200,000*l.* sterling. In these years 320 vessels were employed, whose tonnage amounted to 4500. Dry goods, groceries, &c. are imported in large quantities, from England and the U. States.

Manufactures.] Salt and iron, in small quantities, (which may be greatly increased,) also hats, shoes, boots, tin and crockery ware, in great plenty, are manufactured in this province, as are linen and woollen cloths, whiskey, and apple and peach brandy; all for home consumption.

Roads.] To encourage the settlement of this province, at the first, the king gave large sums for opening roads, and for a number of years, about 1808 to 1813, directed that nearly the whole revenue of the province, amounting to 50,000*l.* sterling, should be laid out in opening and improving the public highways. This, with the required stated labor of the inhabitants on the roads, has made them in many parts good, in all others tolerable. No tolls are exacted on any road or bridge in the province.

Animals, Birds, Reptiles, and Fishes.] The animals common in the northern states, are inhabitants of this province. No rats are to be found here. Bears are plenty, and make depredations on the corn in autumn, and are used by the inhabitants for food. Hedgehogs are here in great numbers. The Indians eat them. Deer also are plenty. Wild ducks and geese abound on the lakes, and in some other waters, especially where there are no inhabitants near. In the northern part of the province are no snakes, but they are sufficiently numerous at the S. W. end. Some years since, people of respectability assert, that they saw several large snakes, 20 yards long. In June, 1811, a snake was seen by a party of gentlemen in L. Ontario, near the mouth of Credit river, 16 miles above York, within 7 yards distance, which played round the boat, which they judged was 30 feet long and 3 in circumference. Tracks of these snakes have been seen on the soft shores of the lake, which have resembled the track made by a large log drawn through the mud. Seals have been caught in the lakes.

Fish of many kinds, and in large quantities, live in the waters of this province, among which the salmon and salmon trout are far the best. The salmon trout, weighing from 15 to 30 pounds, fatter than the salmon, appear in the spring. There is a species of herring, which, in the month of November, are taken at Burlington bay, in nets, in great abundance. The white fish in lake Erie are valuable.

Minerals and Mineral Waters.] Iron ore has been found in great quantities, and of excellent quality, in the districts of Johnstown and London, some of which has been wrought into excellent iron. In the Forks of Grand river, 50 miles from its mouth in lake Erie, on land belonging to the Six Nations of Indians, there has been discovered a body of plaster of Paris, which makes a good manure. Valuable clays, used in painting, have been found in Townsend and other places. Salt, and medicinal springs of value, have been discovered in many places in the province. There is a spring about 2 miles above Niagara falls, that emits an inflammable gas; which, if confined in a pipe, will boil water in 15 minutes. There is a *salt spring* on a creek 15 miles from Newark, from which salt is made.

WESTERN DIVISION OF BRITISH N. AMERICA.

UNDER this head we embrace all that part of British America, which lies west of Lower and Upper Canada.

The grand features of this extensive and inhospitable portion of N. America, its principal lakes, rivers, and mountains, we have already described.* Of its native inhabitants, the Knisteneaux, Chipewyans and Esquimaux, we have also given an account.† The pages referred to contain the principal part of our information, collected from M'Kenzie, Hearne, and others, respecting this country, a great part of which may be considered as *terra incognita*. It is the region of the *fur trade*, which, from the earliest settlement of Canada, was considered of the first importance to the colony. The pioneers in carrying on this trade, became in a great measure amalgamated with the Indians, and by their vices prevented the success of the Catholic missionaries, who had early penetrated 2500 miles beyond the civilized part of the colonies.‡ These religious men, however unsuccessful (in consequence of the injudicious manner of conducting their missions) in converting the natives, were of great service to those commanders who engaged in distant expeditions, and enabled them to extend the fur trade as far W. as the banks of Saskatchewan river, in lat. 53° N. lon. 102° W. Two unsuccessful attempts were made to penetrate even to the Pacific ocean. Many stations were established by the French traders, which have been since occupied by the English Hudson Bay and Northwest Companies; the latter established in 1783.

About the year 1780, the small pox was introduced among these Indians, as was supposed, by a war party from the Missouri, and spread the most deplorable misery and desolation, to a great extent, over this country, from which it has not yet recovered.

Two divisions in this vast territory are marked on our best modern maps, viz. *New South Wales*, and *New North Wales*.

NEW SOUTH WALES.

THIS country is bounded E. by James' bay; S. E. by Albany river, which separates it from Lower Canada; S. W. by the elevated ridge, mentioned p. 145, which divides it from Upper Can-

* See pages 100—102; 116—119; 144, 145.

† Pp. 88—90.

‡ M'Kenzie, vol. I. 5.

ada ; N. W. by Churchill river, which separates it from New N. Wales ; N. by Hudson's bay. It lies between lon. 82° and 95° W. and lat. 51° and 58° N. ; about 700 miles long by 300 broad.

It is intersected nearly in the middle by Severn river, which connects lake Winnipeg with Hudson's bay. Severn House is on the W. side of this river, at its mouth in Hudson's bay ; and Canadian House is on the E. side of its outlet from lake Winnipeg. An eastern branch of this river, passing through Cat lake, on which is Cat Lake House, connects it with lake St. Joseph, on the border of Lower Canada, where is situated Osnaburgh House. From lake St. Joseph issues, to the north, Albany river, which connects this lake with James' bay, on the bank of which, lon. 88° , is Gloucester House, and at its mouth is Albany fort. W. of the Severn, is Nelson's river, already described, connecting Hudson's bay with the head of Winnipeg lake, at the mouth of which is York fort. In about lon. 97° W. lat. $54^{\circ} 20'$ N. is a fall of water 1400 feet, in the eastern branch of this river, called *White fall*.*

This country lies in forest, and is inhabited by the Nenawewheck Indians, a tribe of the Knisteneaux, and the few traders who occupy the several Houses or stations we have mentioned.

NEW NORTH WALES.

THIS country is bounded S. E. by Churchill river, which separates it from New S. Wales ; E. by Hudson's bay ; N. by Chesterfield inlet ; W. by a spur of the *Ridge*, mentioned p. 145, which passes N. to the Northern ocean. Of this country we know little, except that it is full of lakes, inhospitable, and has few Indian inhabitants, and few stations for traders.

General Remarks. The whole country W. of New S. and New N. Wales, and N. of the United States, extending to the Icy sea N. Behring's straits N. W. and the Pacific ocean W. has been but very partially explored. From what is known, there appears to be no strong inducements to know more of it. Various tribes of Indians dwell on its rivers and lakes, and hunt in its mountains and forests, taking the fish from the one, and the animals from the other, for their sustenance and clothing. The Stony or Rocky mountains pass from the northern boundaries of the U. States, lat. $49^{\circ} 30'$ N. lon. 115° W. far toward the Icy sea. W. of these, along the Pacific ocean, from S. to N. are noted on the maps, *New Hanover*, *New Cornwall*, and *New Norfolk*, on a coast lined with islands and harbors.

* Thompson's Atlas, 1817.

We close our account of this part of N. America with the following extract from M'Kenzie,* the only intelligent traveller (except Hearne) who has explored these dreary regions, and published an account of his discoveries.

"The last, but by no means the least, is the immense ridge, or succession of ridges, of stony mountains, whose northern extremity dips in the North sea, in lat. 70° N. and lon. 135° W. running nearly S. E. and begins to be parallel with the coast of the Pacific ocean, from Cook's entry, and so onwards to the Columbia. From thence it appears to quit the coast, but still continuing, with less elevation, to divide the waters of the Atlantic from those which run into the Pacific. In those snow-clad mountains rises the Mississippi, if we admit the Missouri to be its source, which flows into the gulf of Mexico; the river Nelson, which is lost in Hudson's bay; M'Kenzie's river, that discharges itself into the North sea; and the Columbia, emptying itself into the Pacific ocean. The great river St. Lawrence, and Churchill river, with many lesser ones, derive their sources far short of these mountains. It is, indeed; the extension of these mountains so far south on the sea-coast, that prevents the Columbia from finding a more direct course to the sea, as it runs obliquely with the coast upwards of eight degrees of latitude before it mingles with the ocean.

It is further to be observed, that these mountains, from Cook's entry to the Columbia, extend from six to eight degrees in breadth easterly; and that along their eastern skirts is a narrow strip of very marshy, boggy, and uneven ground, the outer edge of which produces coal and bitumen: these I saw on the banks of M'Kenzie's river, as far north as lat. 66° . I also discovered them in my second journey, at the commencement of the Rocky mountains, in 56° N. lat. and 120° W. lon.; and the same was observed by Mr. Fidler, one of the servants of the Hudson's Bay Company, at the source of the south branch of the Saskatchewan, in about lat. 52° N. and lon. $112^{\circ} 30'$ W.† Next to this narrow belt are immense plains, or meadows, commencing in a point at about the junction of the river of the Mountain with M'Kenzie's river, widening as they continue east and south, till they reach the Red river, at its confluence with the Assiniboin river, from whence they take a more southern direction, along the Mississippi towards Mexico. Adjoining to these plains is a broken country, composed of lakes, rocks, and soil.

From the banks of the rivers running through the plains, there appeared to ooze a saline fluid, concreting into a thin scurf on the grass. Near that part of the Slave river where it first loses the name of Peace river, and along the extreme edge of these plains, are very strong salt springs, which in the summer concrete and crystallize in great quantities. About the lake Dauphin, on the S. W.

* Journal of a Voyage through the Northwest Continent of America, 1789 to 1793, vol. II. p. 382—386, N. York Edit.

† Bitumen is also found on the coast of the Slave lake, in lat. 60° N. near its discharge by M'Kenzie's river; and also near the forks of the Elk river.

side of lake Winnipeg, are also many salt ponds; but it requires a regular process to form salt from them. Along the west banks of the former is to be seen, at intervals, and traced in the line of the direction of the plains, a soft rock of limestone, in thin and nearly horizontal strata, particularly on the Beaver, Cedar, Winnipeg, and Superior lakes, as also in the beds of the rivers crossing that line. It is also remarkable, that, in the narrowest part of lake Winnipeg, where it is not more than 2 miles in breadth, the west side is faced with rocks of this stone 30 feet perpendicular; while, on the east side, the rocks are more elevated, and of a dark gray granite.

The latter is to be found throughout the whole extent north of this country, to the coast of Hudson's bay, and, as I have been informed, along that coast, onwards to the coast of Labrador; and it may be further observed, that between these extensive ranges of granite and limestone are found all the great lakes of this country.

There is another very large district which must not be forgotten; and behind all the others in situation as well as in soil, produce, and climate. This comprehends the tract called the Barren Grounds, which is to the north of a line drawn from Churchill, along the north border of the Reindeer lake, to the north of the Lake of the Hills and Slave lake, and along the north side of the latter to the Rocky mountains, which terminate in the North sea, lat. 70° N. and lon. 135° W. in the whole extent of which no trees are visible, except a few stunted ones, scattered along its rivers, and with scarce any thing of surface that can be called earth; yet this inhospitable region is inhabited by a people who are accustomed to the life it requires. Nor has bountiful nature withheld the means of subsistence; the reindeer, which supply both food and clothing, are satisfied with the produce of the hills, though they bear nothing but a short curling moss, on a species of which, that grows on the rocks, the people themselves subsist when famine invades them. Their small lakes are not furnished with a great variety of fish; but such as they produce are excellent, which, with hares and partridges, form a proportion of their food.

The climate must necessarily be severe in such a country as we have described, and which displays so large a surface of fresh water. Its severity is extreme on the coast of Hudson's bay, and proceeds from its immediate exposure to the N. W. winds that blow off the Frozen ocean.

These winds, in crossing directly from the bay over Canada and the British dominions on the Atlantic, as well as over the eastern states of N. America to that ocean, (where they give to those countries a length of winter astonishing to the inhabitants of the same latitudes in Europe,) continue to retain a great degree of force and cold in their passage, even over the Atlantic, particularly at the time when the sun is in its southern declination. The same winds which come from the Frozen ocean, over the barren grounds, and across frozen lakes and snowy plains, bounded by the Rocky mountains, lose their frigid influence, as they travel in a southern direction, till they get to the Atlantic ocean, where they close their progress. Is

not this a sufficient cause for the difference between the climate in America, and that of the same latitude in Europe ?

The climate on the west coast of America assimilates much more to that of Europe in the same latitudes : I think very little difference will be found, except such as proceeds from the vicinity of high mountains covered with snow. This is an additional proof that the difference in the temperature of the air proceeds from the cause already mentioned.

Of the inhabitants of the coast of the Pacific ocean, we know little more than that they are stationary there. The Nadowasis or Assinibois, as well as the different tribes not particularly described, inhabiting the plains on and about the source and banks of the Saskatchewan and Assiniboin rivers, are from the southward, and their progress is N. W."

UNITED STATES OF AMERICA.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT, BOUNDARIES, NAMES, ORIGINAL POPULATION, HISTORICAL EPOCHS, GOVERNMENT, COURTS, LAWS, RELIGION, DIVISIONS, POPULATION, MANNERS AND CUSTOMS, LANGUAGES, LITERATURE, UNIVERSITIES, ARTS, RELIGIOUS AND BENEVOLENT SOCIETIES, ARMY, NAVY, REVENUE, PUBLIC DEBT, NATIONAL FUNDS, MINT, POST OFFICE, BANKS, CITIES, ROADS, INLAND NAVIGATION, MANUFACTURES AND COMMERCE.

Extent.] THE United States, since the late treaty with Spain has been concluded, extend from lat. 25° to $49^{\circ} 37'$ N. and from lon. $64^{\circ} 54'$ to 135° W. The length from E. to W. is about 3700 miles ; the breadth from S. to N. about 1700.

Boundaries.] Bounded E. by the British Province of New-Brunswick and the Atlantic ocean ; S. by the Gulf of Mexico, and the northern Spanish provinces in the viceroyalty of Mexico or New-Spain, from which it is separated by a line commencing at the mouth of Sabine river, lat. $29^{\circ} 36'$ N. up this river till it crosses the parallel of lat. 32° thence due N. to Red river ; up that river to the 100th degree of W. longitude ; thence on that degree to the Arkansaw, and up it to its source ; thence to the 42d. degree of N. latitude, and on this parallel W. to the Pacific ocean. The Pacific ocean forms the western, and the Russian* and British North-American Provinces, the northern, boundary of the United States. Commissioners have been appointed, and are now engaged, in fixing the northern boundary of the United States, which have never been definitely settled.

Names.] Juan Ponce, in 1513, gave the name of *Florida* to the whole eastern coast of North-America. Queen Elizabeth, in 1584, called the whole of the country between Canada and Florida, *Virginia*. In 1606, all the country N. of the present Maryland line was called *North-Virginia* ; and the country S. of that line, *South Virginia*. The Dutch, in 1614, settled on the island of Manhattan, and claimed, what are now, the states of New-York, New-Jersey, Pennsylvania, and Delaware ; to which tract they gave the name of *New-Netherlands*. All the country S. of $36^{\circ} 30'$, including the Carolinas, Georgia, Tennessee, Alabama and Mississippi, received the name of *Carolana*, in 1630 ; and that of *Carolina*, in 1663. The tract now comprising Maine, New-Hampshire, Vermont, Massachusetts, Rhode-Island and Connecticut, received the name of *New-England* in 1643. The inhabitants of these states glory in the name of *Yankees*. For a long period before the revolution, the whole country was called *The British Provinces in North-America*, and often *The Colonies* by way of distinction. On the 4th of July, 1776, the Thirteen Colonies assumed the name of THE UNITED STATES OF AMERICA : a name which they have ever since retained.

* See p. 671.

Some attempts have been made to give the United States a name which shall distinguish them from other parts of America, and that of *Columbia*, and *Fredonia*, have been selected for this purpose ; but neither has yet obtained.

Original Population.] The aborigines of the United States were divided into numerous independent tribes ; but those in the New-England and middle states composed two, and only two, distinct nations. These were the Moheakanneews, and the Iroquois. We call them nations, not because they formed a body politic, governed by the same laws, and obeying the same sovereign ; but because they spoke a common language, and acknowledged a common origin. The Moheakanneews first settled the New-England and middle states, and had probably been here centuries before the Iroquois intruded upon them from the northwest. All the Indians north of the Potowmac, east of the Mississippi, and south of the St. Lawrence, except the Iroquois, are known to have been tribes of this nation. The tribes south of the Potowmac were the Cherokees, the Creeks, the Chickasaws, Choctaws and Tuscaroras. These are known to be distinct nations from the Moheakanneews ; though far less attention has been paid to the history of the southern Indians, than to that of the Indians of New-England.

MOHEAKANNEEWS. The Moheakanneews of New-England* composed 10 distinct tribes, speaking different dialects of the same language. The Abenaguis or Tarrateens inhabited Maine ; the Pigwackets, the eastern and southern parts of New-Hampshire ; the Coos Indians, the western part of that state and the state of Vermont ; the Wampanogas in the old colony of Plymouth ; the Massachusetts round about Boston ; the Nipnets in the county of Worcester ; the Nashaways, a small tribe, in the same county ; the Moheakanneews or Stockbridge Indians, in the county of Berkshire ; the Narragansetts, in Rhode-Island ; and the Pequods, in Connecticut. A succinct account of these various tribes will be given in the geography of the respective states. For the character and manners of these Indians we must refer our readers to the writers who have treated of the history of New-England.

* The colonists, who peopled New-York, New-Jersey, Pennsylvania, Delaware, and Maryland, appear to have paid but little attention to the history of the Indians. On that account we are unable to enumerate the tribes of Moheakanneews, which occupied those states. We only know from the Indians themselves, particularly by one of their authors of the Stockbridge tribe, that those states were inhabited by men speaking the same language with themselves.

The Micmacs of Nova-Scotia, and the Marchites of New-Brunswick, are believed also to have been Moheakanneews.

The Knisteneaux were undoubtedly the same people with the Moheakanneews ; for many of their words were the same, as appears from the vocabulary of M'Kenzie.

M'Kenzie, who was well acquainted with the language and character of the Knisteneaux, considers them also as originally the same people with the *Sioux* or Indians of Louisiana. The evidence of national identity, in this case, is furnished principally by identity of language, and partially, also, by similarity of appearance, customs and traditions. The various tribes of Moheakanneews all understood each other : Their dialects were not more different from each other, than the Doric and Ionic ; nor as much so as those of Yorkshire and Cornwall in England, or as those of Normandy and Provence in France.

Iroquois. The Iroquois occupied both sides of the Mohawk, and all the western part of the state of New-York, the northwestern parts of Pennsylvania, and a part of the country on lake Erie, in the state of Ohio. Their territories comprehended about 60,000 square miles. Their influence, however, was felt through all the adjoining country. They constituted 6 tribes, the Mohawks, Oneidas, Senecas, Cayugas, Onondagas, and Tuscaroras. The Mohawks were the oldest and most powerful tribe. The Tuscaroras were the youngest. They joined the confederacy long after the others, having migrated from North-Carolina.

Historical Epochs.] Nothing will be mentioned under this article, which does not concern the United States as a nation; since all the events, which affect only the individual states, will be mentioned in their respective histories.

1723. The British government proposed to the colonies to form one general government. The object was to facilitate the collection of troops. This proposal was rejected.

1741. An expedition, British and American, went against the island of Cuba, but returned without accomplishing its objects.

1745. Louisbourg, a French fortress in the island of Cape Breton, was taken, June 16, by an expedition from New-England.

1754. A union of the colonies under one colonial government was again proposed, and prevented by the colony of Connecticut.

1755. An expedition from New-England subdued the French force in Nova-Scotia, and reduced the province.

The same year the British and Americans made an unsuccessful attempt to break up the French settlements on the Ohio. General Braddock, their leader, was killed.

The same year a French expedition from Canada, commanded by baron Dieskau, was defeated, on the shore of lake George, by sir W. Johnston.

1765. The stamp act passed the British parliament. This was the first attempt to lay a direct tax on the colonies. The right to lay the tax was denied, and the first colonial congress was convened at New-York, which declared the rights and grievances of the colonies, and presented a petition to the king, and a memorial to both houses of parliament.

1773. The destruction of the tea in the town of Boston, and of the Gaspee schooner at Newport.

1775. The battle of Lexington on the 19th of April roused all America.

The provincial congress of Massachusetts immediately voted to raise an army of 30,000 men. On the 17th of June occurred the battle of Breed's-Hill, so honorable to American valor. About the same time, the articles of confederation were proposed by the second congress at Philadelphia. On July 2d, general Washington took the command of the American army.

1776. The British, March 17th, were compelled to evacuate Boston, and sail for Halifax.

On July 4th, the colonies were declared independent. The British took possession of New-York, Sept. 15th, and in a short time the surrounding country fell into their hands. General Washington retreated across the Delaware.

1777. The Americans under gen. Washington were defeated at Brandywine, Sept. 11. On the 17th of October gen. Burgoyne surrendered his whole army to gen. Gates.

1778. The treaty of alliance with France was formed, Feb. 6.

1780. The defeat of the Americans at the battle of Camden.

1781. The defeat of the British, under Tarleton, by gen. Morgan, at the battle of the Cowpens, on the 17th of January. On the 8th of Sept. defeated col. Stewart at the battle of Eutaw, and cleared Carolina of the British troops.

On the 19th of October, Cornwallis surrendered his army to gen. Washington in Virginia.

1782. Peace was concluded, on the 30th of November, between Great-Britain and the United States.

The independence of America was acknowledged by Holland, April 19, 1782; by Sweden, Feb. 5; by Denmark, Feb. 25; by Spain, March 24; by Russia in July, 1783; by Prussia in 1785.

1787, Sept. 17th. The federal constitution was agreed on by delegates from all the states except Rhode-Island.*

On the 30th of April, 1789, general Washington was inaugurated president of the United States at New-York; and re-elected on the 4th of March, 1793. On the 4th of March, 1797, he relinquished the office of chief magistrate, to which he had been twice summoned by the gratitude of the American people; and, on the 14th of December, 1799, resigned a life of unrivalled usefulness and glory.

In March, 1797, John Adams, esquire, was appointed president of the United States. He continued in office 4 years. In 1801, Thomas Jefferson, esquire, was appointed to the same office, and re-appointed in 1805. In 1809, James Madison, esquire, was elected to the same office. In June, 1812, war was declared by the United States against Great-Britain, which lasted nearly two years. In 1817, James Monroe, esquire, succeeded Mr. Madison in the office of president of the United States.

* The following exhibits at one view, the order, time, &c. in which the several states ratified the federal constitution.

				<i>Majority.</i>
Delaware,	December 3,	1787,	unanimously	
Pennsylvania,	December 13,		46 to 23	23
New-Jersey,	December 19,		unanimously	
Georgia,	January 2,	1788,	unanimously	
Connecticut,	January 9,		123 to 40	88
Massachusetts,	February 6,		187 to 168	19
Maryland,	April 23,		63 to 12	51
South-Carolina,	May 23,		149 to 73	76
New-Hampshire,	June 21,		57 to 46	11
Virginia,	June 25,		89 to 79	10
New-York,	July 26,		30 to 25	5
North-Carolina,	November 27,	1789,	193 to 75	118
Rhode-Island,	May 29,	1790,		2
Vermont,	January 10,	1791,	by a great majority.	
VOL. I.	25			

Government.] The United States were originally British colonies. The governments established over them by the mother country were of four kinds. The first was a *charter* government, by which the powers of legislation were vested in a governor, council, and assembly, *all chosen by the people*. This secured to the governed far more freedom than either of the others. Of this kind were the governments of Connecticut and Rhode-Island; and the inhabitants of those states, from the time of obtaining their charters, enjoyed the same degree of liberty, which they have enjoyed since the revolution. Of this kind also was that of Plymouth colony, and originally that of Massachusetts. The second was a *proprietary* government, in which the proprietor of the province was governor; although he generally resided in England, and administered the government by a deputy of his own appointment; the assembly only being chosen by the people. Such were the governments of Pennsylvania and Maryland; and originally those of New-Jersey and the Carolinas. The third was a *royal* government, in which the governor and council were appointed by the crown, and the assembly by the people. Of this kind were those of New-Hampshire, New-York, Virginia, Georgia, New-Jersey, after 1702, and the Carolinas, after 1728. The fourth was a *mixed* government, in which the governor alone was appointed by the crown, and both the council and assembly were chosen by the people. The governor, however, had the right to negative a certain number of the council; but not to fill up vacancies thus occasioned. Of this kind was the government of Massachusetts. This variety of governments created different degrees of dependence on the crown. The charter governments had the sole power of enacting laws; but the laws might not be contrary to the laws of England. In the others, the laws must be ratified by the king.

On the fourth of July, 1776, the colonies declared themselves **FREE AND INDEPENDENT**, and by seven years of distressing but successful war, proved to the world the truth of their declaration. At the same time, by their delegates in congress, they published **ARTICLES OF CONFEDERATION**, in which they styled themselves **THE UNITED STATES OF AMERICA**. These were ratified by congress, July 9th. 1778.

By these articles the thirteen states entered into a firm league of friendship, and bound themselves to assist each other against every enemy. Each state, however, retained its own sovereignty, and every power, jurisdiction, and right, not delegated to congress. Each state was annually to appoint not less than two, nor more than seven, delegates, who were to meet every year, on the first Monday in November. No person could serve as delegate more than three, in any term of six years; nor could any delegate hold any office under the United States. Each state could recall its delegates during the year, and appoint new ones. In determining questions, each state had one vote. Each state was bound to abide by the determination of congress, on all questions submitted to it by the confederation. These articles were to be invariably observed by the several states, and the union was to be perpetual; nor was any al-

teration to be made in any of the articles, unless first agreed to in congress, and afterwards confirmed by the legislature of each state.

These articles, after the war had ceased to give them vigor, were found inadequate. A convention met in Philadelphia in the summer of 1787, consisting of delegates chosen by each state, to fix upon the necessary amendments. This convention proposed an entirely new form of government, which was afterwards adopted by the several states, and which, since its adoption, has been materially altered. We give it here with the latest additions.

Constitution. We, the people of the United States, in order to form a more perfect union, establish justice, ensure domestic tranquillity, provide for the common defence, promote the general welfare, and secure the blessings of liberty to ourselves and our posterity, do ordain and establish this Constitution for the United States of America.

ART. I. Sec. 1. All legislative powers herein granted shall be vested in a congress of the United States, which shall consist of a senate and house of representatives.

Sec. 2. The house of representatives shall be composed of members, chosen every second year by the people of the several states, and the electors in each state shall have the qualifications requisite for electors of the most numerous branch of the state legislature.

No person shall be a representative who shall not have attained to the age of twenty-five years, and been seven years a citizen of the United States, and who shall not, when elected, be an inhabitant of that state in which he shall be chosen.

Representatives and direct taxes shall be apportioned among the several states, which may be included within this union, according to their respective numbers, which shall be determined by adding to the whole number of free persons, including those bound to service for a term of years, and including Indians not taxed, three fifths of all other persons. The actual enumeration shall be made within three years after the first meeting of the congress of the United States, and within every subsequent term of ten years, in such manner as they shall by law direct. The number of representatives shall not exceed one for every thirty thousand, but each state shall have at least one representative; and, until such enumeration shall be made, the state of New-Hampshire shall be entitled to choose three, Massachusetts eight, Rhode-Island and Providence Plantations one, Connecticut five, New-York six, New-Jersey four, Pennsylvania eight, Delaware one, Maryland six, Virginia ten, North-Carolina five, South-Carolina five, and Georgia three.

When vacancies happen in the representation from any state, the executive authority thereof shall issue writs of election to fill such vacancies.

The house of representatives shall choose their speaker and other officers; and shall have the sole power of impeachment.

Sec. 3. The senate of the United States shall be composed of two senators from each state, chosen by the legislature thereof, for six years; and each senator shall have one vote.

Immediately after they shall be assembled in consequence of the first election, they shall be divided as equally as may be into three classes. The seats of the senators of the first class shall be vacated at the expiration of the second year, of the second class at the expiration of the fourth year, and of the third class at the expiration of the sixth year, so that one third may be chosen every second year; and if vacancies happen by resignation or otherwise, during the recess of the legislature of any state, the executive thereof may make temporary appointments until the next meeting of the legislature, which shall then fill such vacancies.

No person shall be a senator who shall not have attained to the age of thirty years, and been nine years a citizen of the United States, and who shall not, when elected, be an inhabitant of that state for which he shall be chosen.

The vice-president of the United States shall be president of the senate, but shall have no vote, unless they be equally divided.

The senate shall choose their other officers, and also a president pro-tempore, in the absence of the vice-president, or when he shall exercise the office of president of the United States.

The senate shall have the sole power to try all impeachments. When sitting for that purpose, they shall be on oath or affirmation. When the president of the United States is tried, the chief justice shall preside: And no person shall be convicted without the concurrence of two thirds of the members present.

Judgment in cases of impeachment shall not extend further than to removal from office, and disqualification to hold or enjoy any office of honor, trust, or profit, under the United States; but the party convicted shall nevertheless be liable and subject to indictment, trial, judgment, and punishment according to law.

Sec. 4. The times, places, and manner of holding elections for senators and representatives, shall be prescribed in each state by the legislature thereof; but the congress may, at any time, by law, make or alter such regulations, except as to the places of choosing senators.

The congress shall assemble at least once in every year; and such meeting shall be on the first Monday in December, unless they shall by law appoint a different day.

Sec. 5. Each house shall be the judge of the elections, returns, and qualifications of its own members; and a majority of each shall constitute a quorum to do business; but a smaller number may adjourn from day to day, and may be authorized to compel the attendance of absent members, in such manner and under such penalties as each house may provide.

Each house may determine the rules of its proceedings; punish its members for disorderly behaviour; and, with the concurrence of two thirds, expel a member.

Each house shall keep a journal of its proceedings; and from time to time, publish the same, excepting such parts as may, in their judgment, require secrecy: and the yeas and nays of the members of either house on any question, shall, at the desire of one fifth of those present, be entered on the journal.

Neither house, during the session of congress, shall, without the consent of the other, adjourn for more than three days, nor to any other place than that in which the two houses shall be sitting.

Sec. 6. The senators and representatives shall receive a compensation for their services, to be ascertained by law, and paid out of the treasury of the United States. They shall, in all cases, except treason, felony, and breach of the peace, be privileged from arrest, during their attendance at the session of their respective houses, and in going to or returning from the same; and for any speech or debate in either house they shall not be questioned in any other place.

No senator or representative shall, during the time for which he was elected, be appointed to any civil office, under the authority of the United States, which shall have been created, or the emoluments whereof shall have been increased, during such time: and no person holding any office under the United States, shall be a member of either house, during his continuance in office.

Sec. 7. All bills, for raising a revenue, shall originate in the house of representatives; but the senate may propose or concur with amendments, as on other bills.

Every bill which shall have passed the house of representatives and the senate, shall, before it become a law, be presented to the president of the United States. If he approve, he shall sign it: but if not, he shall return it, with his objections, to that house in which it shall have originated, who shall enter the objections at large, on their journal, and proceed to re-consider it. If, after such re-consideration, two thirds of that house shall agree to pass the bill, it shall be sent, together with the objections, to the other house, by which it shall likewise be re-considered: and if approved by two thirds of that house, it shall become a law. But, in all such cases, the votes of both houses shall be determined by yeas and nays: and the names of the persons voting for and against the bill shall be entered on the journal of each house respectively. If any bill shall not be returned by the president, within ten days (Sundays excepted) after it shall have been presented to him, the same shall be a law, in like manner as if he had signed it, unless the congress, by their adjournment, prevent its return; in which case it shall not be a law.

Every order, resolution, or vote, to which the concurrence of the senate and house of representatives may be necessary, (except on a question of adjournment,) shall be presented to the president of the United States; and, before the same shall take effect, shall be approved by him; or, being disapproved by him, shall be re-passed by two thirds of the senate and house of representatives, according to the rules and limitations prescribed in the case of a bill.

Sec. 8. The congress shall have power,

To lay and collect taxes, duties, imposts and excises, to pay the debts, and provide for the common defence and general welfare of the United States: but all duties, imposts and excises shall be uniform throughout the United States.

To borrow money on the credit of the United States.

To regulate commerce with foreign nations, and among the several states, and with the Indian tribes.

To establish a uniform rule of naturalization, and uniform laws on the subject of bankruptcies, throughout the United States.

To coin money ; regulate the value thereof, and of foreign coin ; and fix the standard of weights and measures.

To provide for the punishment of counterfeiting the securities and current coin of the United States.

To establish post-offices and post roads.

To promote the progress of science and useful arts, by securing for limited times, to authors and inventors, the exclusive right to their respective writings and discoveries.

To constitute tribunals inferior to the supreme court.

To define and punish piracies and felonies committed on the high seas, and offences against the law of nations.

To declare war ; grant letters of marque and reprisal, and make rules concerning captures on land and water.

To raise and support armies. But no appropriation of money for that use shall be for a longer term than two years.

To provide and maintain a navy.

To make rules for the government and regulation of the land and naval forces.

To provide for calling forth the militia, to execute the laws of the union, suppress insurrections, and repel invasions.

To provide for organizing, arming and disciplining the militia, and for governing such part of them as may be employed in the service of the United States : reserving to the states respectively, the appointment of the officers, and the authority of training the militia according to the discipline prescribed by congress.

To exercise exclusive legislation, in all cases whatsoever, over such district (not exceeding ten miles square) as may, by cession of particular states, and the acceptance of congress, become the seat of the government of the United States ; and to exercise like authority over all places, purchased by the consent of the legislature of the state in which the same shall be, for the erection of forts, magazines, arsenals, dock-yards, and other needful buildings : and

To make all laws which shall be necessary and proper for carrying into execution the foregoing powers, and all other powers, vested by this constitution in the government of the United States, or in any department or officer thereof.

Sec. 9. The migration or importation of such persons, as any of the states now existing, shall think proper to admit, shall not be prohibited by the congress, prior to the year one thousand eight hundred and eight : but a tax or duty may be imposed on such importation, not exceeding ten dollars for each person.

The privilege of the writ of habeas corpus shall not be suspended, unless when, in cases of rebellion or invasion, the public safety may require it.

No bill of attainder, or ex post facto law, shall be passed.

No capitation or other direct tax shall be laid, unless in proportion to the census or enumeration herein before directed to be taken.

No tax or duty shall be laid on articles exported from any state. No preference shall be given, by any regulation of commerce or revenue, to the ports of one state over those of another : nor shall vessels, bound to or from one state, be obliged to enter, clear, or pay duties in another.

No money shall be drawn from the treasury, but in consequence of appropriations made by law : and a regular statement and account of the receipts and expenditures of all public money shall be published from time to time.

No title of nobility shall be granted by the United States. And no person, holding any office of profit or trust under them, shall, without the consent of the congress, accept of any present, emolument, office, or title, of any kind whatever, from any king, prince, or foreign state.

Sec. 10. No state shall enter into any treaty, alliance, or confederation ; grant letters of marque and reprisal ; coin money ; emit bills of credit ; make any thing but gold and silver coin a tender in payment of debts ; pass any bill of attainder, ex post facto law, or law impairing the obligation of contracts, or grant any title of nobility.

No state shall, without the consent of the congress, lay any imposts or duties on imports or exports, except what may be absolutely necessary for executing its inspection laws ; and the net produce of all duties and imposts, laid by any state on imports or exports, shall be for the use of the treasury of the United States ; and all such laws shall be subject to the revision and control of the congress. No state shall, without the consent of congress, lay any duty of tonnage, keep troops, or ships of war, in time of peace, enter into any agreement or compact with another state or with a foreign power, or engage in war, unless actually invaded, or in such imminent danger as will not admit of delay.

ART. II. Sec. 1. The executive power shall be vested in a president of the United States of America. He shall hold his office during the term of four years, and, together with the vice-president, chosen for the same term, be elected as follows :

Each state shall appoint, in such manner as the legislature thereof may direct, a number of electors, equal to the whole number of senators and representatives, to which the state may be entitled in the congress. But no senator or representative, or person holding an office of trust or profit under the United States, shall be appointed an elector.

The electors shall meet in their respective states, and vote by ballot for two persons, of whom one, at least, shall not be an inhabitant of the same state with themselves. And they shall make a list of all the persons voted for, and of the number of votes for each ; which list they shall sign and certify, and transmit sealed to the seat of the government of the United States, directed to the president of the senate. The president of the senate shall, in the presence of the senate and house of representatives, open all the certificates, and the votes shall then be counted. The person having

the greatest number of votes shall be the president, if such number be a majority of the whole number of electors appointed ; and if there be more than one who have such majority, and have an equal number of votes, then the house of representatives shall immediately choose by ballot one of them for president : and if no person have a majority, then, from the five highest on the list, the said house shall in like manner choose the president. But in choosing the president, the votes shall be taken by states, the representation from each state having one vote : a quorum for this purpose shall consist of a member or members from two thirds of the states : and a majority of all the states shall be necessary to a choice. In every case, after the choice of the president, the person having the greatest number of votes of the electors shall be the vice-president. But if there should remain two or more who have equal votes, the senate shall choose from them, by ballot, the vice-president.

The congress may determine the time of choosing the electors, and the day on which they shall give their votes ; which day shall be the same throughout the United States.

No person, except a natural born citizen, or a citizen of the United States at the time of the adoption of this constitution, shall be eligible to the office of president. Neither shall any person be eligible to that office, who shall not have attained to the age of thirty-five years, and been fourteen years a resident within the United States.

In case of the removal of the president from office, or of his death, resignation, or inability to discharge the powers and duties of the said office, the same shall devolve on the vice-president ; and the congress may, by law, provide for the case of removal, death, resignation, or inability, both of the president and vice-president, declaring what officer shall then act as president : and such officer shall act accordingly, until the disability be removed, or a president shall be elected.

The president shall, at stated times, receive for his services, a compensation, which shall neither be increased nor diminished, during the period for which he shall have been elected : and he shall not receive, within that period, any other emolument from the United States, or any of them.

Before he enter on the execution of his office, he shall take the following oath or affirmation :

" I do solemnly swear (or affirm) that I will faithfully execute the office of president of the United States : and will, to the best of my ability, preserve, protect, and defend the constitution of the United States."

Sec. 2. The president shall be commander in chief of the army and navy of the United States, and of the militia of the several states, when called into the actual service of the United States. He may require the opinion, in writing, of the principal officer in each of the executive departments, upon any subject relating to the duties of their respective offices : and he shall have power to

grant reprieves and pardons for offences against the United States, except in cases of impeachment.

He shall have power, by and with the advice and consent of the senate, to make treaties, provided two thirds of the senators present concur: and he shall nominate, and by and with the advice and consent of the senate, shall appoint, ambassadors, other public ministers and consuls, judges of the supreme court, and all other officers of the United States, whose appointments are not herein otherwise provided for, and which shall be established by law. But the congress may, by law, vest the appointment of such inferior officers, as they shall think proper, in the president alone, in the courts of law, or in the heads of departments.

The president shall have power to fill up all vacancies that may happen during the recess of the senate, by granting commissions, which shall expire at the end of their next session.

Sec. 3. He shall, from time to time, give to the congress information of the state of the union, and recommend to their consideration such measures as he shall judge necessary and expedient. He may, on extraordinary occasions, convene both houses, or either of them; and, in case of disagreement between them, with respect to the time of adjournment, he may adjourn them to such time as he shall think proper. He shall receive ambassadors and other public ministers. He shall take care that the laws be faithfully executed; and shall commission all the officers of the United States.

Sec. 4. The president, vice-president, and all civil officers of the United States, shall be removed from office, on impeachment for, and conviction of, treason, bribery, or other high crimes and misdemeanors.

ART. III. *Sec. 1.* The judicial power of the United States shall be vested in one supreme court, and in such inferior courts as the congress may, from time to time, ordain and establish. The judges, both of the supreme and inferior courts, shall hold their offices during good behaviour; and shall, at stated times, receive for their services, a compensation, which shall not be diminished during their continuance in office.

Sec. 2. The judicial power shall extend to all cases, in law and equity, arising under this constitution, the laws of the United States, and treaties made, or which shall be made, under their authority; to all cases affecting ambassadors, other public ministers, and consuls; to all cases of admiralty and maritime jurisdiction; to controversies to which the United States shall be a party; to controversies between two or more states, between a state and citizens of another state, between citizens of different states, between citizens of the same state, claiming lands under grants of different states, and between a state, or the citizens thereof, and foreign states, citizens, or subjects.

In all cases, affecting ambassadors, other public ministers, and consuls, and those in which a state shall be a party, the supreme court shall have original jurisdiction. In all the other cases before

mentioned, the supreme court shall have appellate jurisdiction, both as to law and fact, with such exceptions, and under such regulations, as the congress shall make.

The trial of all crimes, except in cases of impeachment, shall be by jury; and such trial shall be held in the state where the said crimes shall have been committed; but when not committed within any state, the trial shall be at such place or places as the congress may by law have directed.

Sec. 3. Treason against the United States shall consist only in levying war against them, or in adhering to their enemies, giving them aid and comfort. No person shall be convicted of treason unless on the testimony of two witnesses to the same overt act, or on confession in open court.

The congress shall have power to declare the punishment of treason: but no attainder of treason shall work corruption of blood, or forfeiture, except during the life of the person attainted.

ART. IV. Sec. 1. Full faith and credit shall be given, in each state, to the public acts, records, and judicial proceedings of every other state. And the congress may, by penal laws, prescribe the manner, in which such acts, records, and proceedings shall be proved, and the effect thereof.

Sec. 2. The citizens of each state shall be entitled to all privileges and immunities of citizens in the several states.

A person charged in any state with treason, felony, or other crime, who shall flee from justice, and be found in another state, shall, on demand of the executive authority of the state from which he fled, be delivered up, to be removed to the state, having jurisdiction of the crime.

No person, held to service or labor in one state, under the laws thereof, escaping into another, shall, in consequence of any law or regulation therein, be discharged from such service or labor; but shall be delivered up on claim of the party to whom such service or labor may be due.

Sec. 3. New states may be admitted by the congress into this union; but no new state shall be formed or erected within the jurisdiction of any other state—nor any state be formed by the junction of two or more states, or parts of states—without the consent of the legislatures of the states concerned, as well as of the congress.

The congress shall have power to dispose of, and make all needful rules and regulations respecting, the territory or other property belonging to the United States: and nothing in this constitution shall be so construed, as to prejudice any claims of the United States, or of any particular state.

Sec. 4. The United States shall guarantee to every state in this union a republican form of government; and shall protect each of them against invasion, and on application of the legislature, or of the executive, (when the legislature cannot be convened,) against domestic violence.

ART. V. The congress, whenever two thirds of both houses shall deem it necessary, shall propose amendments to this consti-

tion, or, on the application of the legislatures of two thirds of the several states, shall call a convention for proposing amendments, which, in either case, shall be valid to all intents and purposes, as part of this constitution, when ratified by the legislatures of three fourths of the several states, or by conventions, in three fourths thereof, as the one or the other mode of ratification may be proposed by the congress : provided, that no amendment, which may be made prior to the year one thousand eight hundred and eight, shall in any manner affect the first and fourth clauses in the ninth section of the first article ; and that no state, without its consent, shall be deprived of its equal suffrage in the senate.

ART. VI. All debts contracted, and engagements entered into, before the adoption of this constitution, shall be as valid against the United States under this constitution, as under the confederation.

This constitution, and the laws of the United States which shall be made in pursuance thereof, and all treaties made, or which shall be made, under the authority of the United States, shall be the supreme law of the land ; and the judges in every state shall be bound thereby, any thing in the constitution or laws of any state to the contrary notwithstanding.

The senators and representatives before mentioned, and the members of the several state legislatures, and all executive and judicial officers, both of the United States and of the several states, shall be bound, by oath or affirmation, to support this constitution ; but no religious test shall ever be required as a qualification to any office or public trust under the United States.

ART. VII. The ratification of the conventions of nine states shall be sufficient for the establishment of this constitution between the states so ratifying the same.

AMENDMENTS. The following *articles* in addition to, and amendment of, the constitution, of the United States, having been ratified by the legislatures of nine states, are equally obligatory with the constitution itself.

I. Congress shall make no law respecting an establishment of religion, or prohibiting the free exercise thereof, or abridging the freedom of speech, or of the press ; or the right of the people peaceably to assemble, and to petition the government for a redress of grievances.

II. A well regulated militia being necessary for the security of a free state, the right of the people to keep and bear arms shall not be infringed.

III. No soldier shall, in time of peace, be quartered in any house without the consent of the owner ; nor in time of war, but in a manner to be prescribed by law.

IV. The right of the people to be secure in their persons, houses, papers, and effects, against unreasonable searches and seizures, shall not be violated ; and no warrants shall issue but upon probable cause, supported by oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.

V. No person shall be held to answer for a capital or otherwise infamous crime, unless on a presentment or indictment of a grand jury, except in cases arising in the land or naval forces, or in the militia when in actual service, in time of war or public danger; nor shall any person be subject, for the same offence, to be twice put in jeopardy of life or limb; nor shall be compelled, in any criminal case, to be witness against himself; nor be deprived of life, liberty, or property, without due process of law; nor shall private property be taken for public use, without just compensation.

VI. In all criminal prosecutions, the accused shall enjoy the right to a speedy and public trial, by an impartial jury of the state and district wherein the crime shall have been committed, (which district shall have been previously ascertained by law,) and to be informed of the nature and cause of the accusation; to be confronted with the witnesses against him; to have compulsory process for obtaining witnesses in his favor; and to have the assistance of counsel for his defence.

VII. In suits at common law, where the value in controversy shall exceed 20 dollars, the right of trial by jury shall be preserved; and no fact tried by a jury, shall be otherwise re-examined in any court of the United States, than according to the rules of the common law.

VIII. Excessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted.

IX. The enumeration in the constitution of certain rights, shall not be construed to deny or disparage others retained by the people.

X. The powers not delegated to the United States by the constitution, nor prohibited by it to the states, are reserved to the states respectively, or to the people.

XI. The judicial power of the United States shall not be construed to extend to any suit in law or equity, commenced or prosecuted against one of the United States by citizens of another state, or by citizens or subjects of any foreign state.

XII. The following is in lieu of the third paragraph of the first section of the second article of the constitution.

The electors shall meet in their respective states, and vote, by ballot, for president and vice-president, one of whom, at least, shall not be an inhabitant of the same state with themselves; they shall name, in their ballots, the person voted for as president, and, in distinct ballots, the person voted for as vice-president; and they shall make distinct lists of all persons voted for as president, and all persons voted for as vice-president, and of the number of votes for each, which lists they shall sign and certify, and transmit, sealed, to the seat of the government of the United States, directed to the president of the senate—the president of the senate shall, in presence of the senate and house of representatives, open all the certificates, and the votes shall then be counted. The person having the greatest number of votes for president, shall be the president, if such number be a majority of the whole number of electors appointed; and if no person have such majority, then from the persons having the highest numbers, not exceeding three, on the list

of those voted for as president, the house of representatives shall choose immediately, by ballot, the president. But in choosing the president, the votes shall be taken by states, the representation from each state having one vote ; a quorum for this purpose shall consist of a member or members from two thirds of the states, and a majority of all the states shall be necessary to a choice. And if the house of representatives shall not choose a president whenever the right of choice shall devolve upon them, before the fourth day of March then next following, then the vice-president shall act as president, as in case of the death or other constitutional disability of the president.

The person having the greatest number of votes, as vice-president, shall be the vice-president, if such number be a majority of the whole number of electors appointed ; and if no person have a majority, then, from the two highest numbers on the list, the senate shall choose the vice-president—a quorum for the purpose shall consist of two thirds of the whole number of senators, and a majority of the whole number shall be necessary to a choice. But no person constitutionally ineligible to the office of president, shall be eligible to that of vice-president of the United States.

Beside this general government, each state is an independent sovereignty, possessing a republican form of government ; retaining all the powers not expressly vested in congress, and entrusted to a governor, legislature, and judiciary, chosen directly or indirectly by the people. Abstracts of the constitutions of the several states will be given in their proper places.

Courts.] The courts of the United States are of three kinds, a *supreme court*, *circuit courts*, and *district courts*. The first is established by the constitution ; the two last by laws of congress. The supreme court consists of a chief justice, and six associate judges. It is only a court of appeals, and a court of errors. The attorney general of the United States is the public prosecutor before this court.

The circuit courts consist of a judge of the supreme court, and the district judge of the state.

The United States, for this purpose, are divided into 7 circuits, and 25 districts.

The first circuit includes the districts of New-Hampshire, Massachusetts, and Rhode-Island ; the second, those of Vermont, Connecticut, and the two districts of New-York ; the third, those of New-Jersey and Pennsylvania ; the fourth, those of Maryland and Delaware ; the fifth, those of Virginia and North-Carolina ; the sixth, those of South-Carolina and Georgia ; the seventh, those of Ohio, Kentucky, and Tennessee. Beside these, the districts of Maine, Columbia, Michigan, Indiana, Mississippi, Louisiana, and Missouri, have each district judges, though they have not yet all been formed into circuits.

The circuit court sits twice a year in each district composing the circuit, in one of which the judge must reside. The district courts are held by the judge of the district, who has no authority out of his own district. These courts are held statedly four times

a year in each district, and as much oftener as the judge directs. The public prosecutor, before the circuit and district courts, is a district attorney. A marshal is appointed, also, for each district, with the powers of a sheriff. The jurisdiction of these courts is expressly limited by the 2d section of the 3d article of the constitution. All the objects of their jurisdiction are of a national character.

Laws.] The laws, to which the citizens of the United States are subject, consist of *national* and *state* laws.

The national laws are all *written*. They consist of the constitution of the United States, public treaties, and acts of congress. The state laws are divided into *written* and *unwritten*. The written are the acts of the state legislatures. The unwritten is the *common law* of the state, where that is ascertained. In other cases, the common law of England is generally adhered to by the state courts, where the circumstances of the country do not render it inapplicable.

By an act of congress, the laws of the several states are regarded as rules of decision *in trials at common law*, in the courts of the United States. Of course the laws of the state in which the trial is held, regulate the court. As part of the laws of the states are unwritten, this act gives a common law jurisdiction, *in civil cases*, to the federal courts. In *criminal* cases no such provision exists. The *penal code* of the United States rests, therefore, upon the constitution and acts of congress.

The state courts are bound, in their decisions, by the national laws, as well as by the laws of the state.

Religion.] The constitution establishes no one form of religion, but secures to every citizen the free exercise of his own. In a few of the states provision is made by law for its support; in the others, the people are left at liberty to support it, or not to do it, at their option. The public teachers of religion are maintained differently in different towns and states; all, however, in one or more of the following methods: by taxes, funds, pew rents, small glebes, land rents, or voluntary contributions.

The great body of the people denominate themselves Christians; a very few are Jews; and a few others are open infidels; a great number have yet their religion to choose.

The following are the denominations of Christians: Congregationalists, Presbyterians, Episcopalians, Friends, Methodists, Baptists, German Lutherans, Dutch Reformed, Roman Catholics, Moravians, Mennonists, Tunkers, Universalists, and Shakers.

The CONGREGATIONALISTS are the most numerous denomination. There are about 1000 congregations of this denomination in New-England, beside a considerable number scattered through the middle and southern states. Their whole number is probably not less than 1200, and nearly an equal number of ministers and candidates.

After them PRESBYTERIANS are the most numerous. They have a constitution and a confession of faith. Their supreme ecclesiastical judicatory is styled *The General Assembly of the Presbyterian Church*. Subordinate bodies are synods, presbyteries and church-sessions. There were within the bounds of the general assembly

in 1810, 5 synods, 36 presbyteries, 772 congregations, and 434 ministers; besides a considerable number of licentiates. In 1817, there were 10 synods, with the same number of presbyteries, and a large increase of churches and ministers. The great body of the Presbyterians inhabit the middle, southern and western states.

The number of EPISCOPAL churches in 1808, in New-England, was 65, and of ministers, 48. In the middle states there were 68 churches and 66 ministers, and in the southern, 105 churches and 111 ministers: in all 240 churches and 213 ministers. There has been a large increase since. There are seven dioceses in the U. States, in which are as many bishops. A bishop, with certain of his clergy, form a state convention. But the general convention of the protestant episcopal church, is the body to whose care the interests of the whole church are intrusted. This convention is composed of two houses: the house of bishops, and the house of delegates, consisting of clergymen and laymen.

The FRIENDS are most numerous in the middle states. An account was taken in 1812 of all the meetings of Friends in America, by which it appears, that there were 89 congregations connected with the yearly meeting in R. Island, and 98 connected with the yearly meeting in New-York.

METHODISTS. The great body of this denomination live in the interior of the southern states, though they are scattered throughout the union. They style themselves *The United Societies of the Methodist Episcopal Church*. Their number, in 1809, amounted to 159,500.* These are the Wesleyan or American Methodists. They had three bishops in 1817. The total number of this denomination throughout the world, was estimated, in 1816, at 436,290.

The BAPTISTS are independents in their government and discipline. Of this denomination there were in 1818, 138 associations, 2682 churches, 1859 ministers, and 190,000 members.†

The LUTHERANS have about 100 congregations in Pennsylvania and New-York. They are of German extraction. The *German Calvinists* are about equally numerous. These two denominations live together in perfect harmony.

The DUTCH REFORMED CHURCH contains about 80 congregations, composing one synod, styled *The Dutch Reformed Synod of New-York and New-Jersey*. They hold the canons of Dordrecht, with some additional ones of their own, and adopt the Heidelberg catechism.

The ROMAN CATHOLICS are more numerous in Maryland, than in any other state. They probably amount to 75,000. They have one archbishop in Baltimore; and four bishops: one in Boston, one in New-York, one in Kentucky, and one in New-Orleans. Except in Maryland, they are found principally in the large cities, and are almost universally foreigners, or their immediate descendants.

* Christian Observer, VIII. 670.

† Fourth Annual Report of the Bap. Board of Foreign Missions

The **MORAVIANS**, in 1788, amounted to about 2000 souls. Their principal settlements are Bethlehem, Nazareth, and Litiz in Pennsylvania, Hope in New-Jersey, and Wachovia, on the Yadkin, in North-Carolina. There is a respectable congregation in N. York. They style themselves *The United Brethren of the Protestant Episcopal Church*. They were introduced into America by count Zinzendorf, in 1741.

The **MENNONISTS** derive their name from Simon Menno, a German, who was born in 1505. In 1531 he became a Baptist. Some of his followers came into Germantown, Pennsylvania, in 1692. That is now their principal settlement. Their whole number in that state, in 1770, was upwards of 4000, divided into 13 churches, and 42 congregations, under the care of 15 clergymen, and 53 licentiates.

The **TUNKERS** (from *tunken*, to put a morsel in sauce) first appeared in America in 1719. Their principal settlement is Ephrata, 60 miles west of Philadelphia. In 1770 those in Pennsylvania were 2000 in number, beside a few in Maryland. They are merely German Universalists.

The **UNIVERSALISTS** are of two kinds, the followers of Dr. Chauncey, and those of Mr. John Murray. The latter sect has a number of churches, governed by a constitution formed in 1789, by a convention of their ministers at Philadelphia. Their congregations are increasing.

The **SHAKERS** are a small sect, which has existed in America since 1774, when a few of them came from England to New-York. Their principal settlement is at Nissequenia, above Albany. They have others in New-Lebanon and Enfield, in New-Hampshire.

A still smaller sect, called **SANDEMANIANS**, has existed in the United States, but is now nearly extinct.

The **JEWS** are not numerous. They have synagogues at New-York, (R. I.) New-York, Philadelphia, Charleston, and Savannah. The whole number of Jews, in all parts of the world, is estimated at 3 millions.

Divisions.] The United States will be considered under the four following grand divisions, viz. the *Eastern, Middle, Southern, and Western*.

I. EASTERN STATES, OR NEW-ENGLAND.

- | | |
|------------------------|-----------------|
| 1. Vermont | 4. Rhode-Island |
| 2. New-Hampshire | 5. Connecticut |
| 3. { Maine | |
| { Massachusetts Proper | |

II. MIDDLE STATES.

- | | |
|-----------------|----------------------|
| 1. New-York | 4. Delaware |
| 2. New-Jersey | 5. Maryland |
| 3. Pennsylvania | 6. Columbia District |

III. SOUTHERN STATES.

- | | |
|-------------------|------------|
| 1. Virginia | 4. Georgia |
| 2. North-Carolina | 5. Florida |
| 3. South-Carolina | 6. Alabama |

IV. WESTERN STATES AND TERRITORIES.

East of the Mississippi, from S. to N.

- | | |
|----------------|------------------------|
| 1. Mississippi | 5. Indiana |
| 2. Tennessee | 6. Ohio |
| 3. Kentucky | 7. Michigan Territory |
| 4. Illinois | 8. Northwest Territory |

West of the Mississippi.

- | | |
|------------------------|---|
| 9. Missouri | 11. Louisiana |
| 10. Arkansas Territory | 12. Territories W. of these to the Pacific ocean. |

STATISTICAL TABLE OF THE UNITED STATES.

States and Territories.	Population, 1810.	Average No. to 1 sq. mile.	Square miles.	Rep's to Congress	Capital towns.	No. of Slaves.
UNITED STATES						
I. 'E. STATES.					WASHINGTON	
1. Vermont	217,895	21	10,212		BOSTON.	
2. New-Hampshire	214,460	22 1-2	9,491		6 Montpelier	None
3. { Maine	228,705	6	39,000		6 Concord	None
3. { Massachusetts	472,040	65	7,250	20	Portland	None
4. Rhode-Island	76,931	18 3-4	1,580		BOSTON	None
5. Connecticut	261,942	55	4,764		2 Providence	108
					Newport	
					7 Hartford	310
					New-Haven	
	1,471,973		72,297	41		418
II. M. STATES.					NEW-YORK	
1. New-York	959,040	20 3-4	46,085		PHILADELPHIA	
2. New-Jersey	245,562	29 1-2	8,320	27	NEW-YORK	15,017
3. Pennsylvania	810,091	17 1-2	46,000	6	Trenton	10,851
4. Delaware	72,674	34 1-4	2,120	23	PHILADELPHIA	795
5. Maryland	380,546	27 1-4	13,950	2	Dover	4,177
6. Columbia District	24,023	240	100	9	Annapolis	111,502
				0	BALTIMORE.	5,395
					WASHINGTON	
	2,491,945		116,575	67		147,737

STATISTICAL TABLE, &c.

States and Territories.	Population, 1810.	Average No. to 1 sq. mile.	Square miles.	Reps to Congress	Capital towns	No. of Slaves.
III. S. STATES.						
1. Virginia	974,622	14	70,000	23	CHARLESTON.	392,518
2. North-Carolina	555,500	11	48,000	15	Richmond	168,824
3. South-Carolina	415,115	17	24,000	9	Raleigh	196,365
4. Georgia	252,433	4	62,000	6	Columbia	105,218
5. Florida	20,000		60,000	0	CHARLESTON	
6. Alabama	74,000		44,000	10	Milledgeville	
	2,291,670		308,000	53	SAVANNAH	862,925
					Augustine	
					Cahawba	
					Huntsville	
IV. W. STATES.						
<i>E. of the Mississippi.</i>						
1. Mississippi	540,352		45,000	1	Monticello	17,088
2. Tennessee	261,727	6 1-2	40,000	6	NATCHEZ	44,535
3. Kentucky	406,511	9 1-2	42,000	10	Nashville	80,561
4. Illinois	12,282		52,000	10	Murfreesburgh	168
5. Indiana	24,520		40,000	1	Frankfort	237
6. Ohio	230,760	6	59,128	6	LEXINGTON	None
7. Michigan Ter.	4,762		34,000	0	Corydon	
8. N. W. Territory			150,000	0	VINCENNES	
<i>W. of the Mississippi.</i>						
9. Missouri	20,845			10	Columbus	
10. Arkansas Ter.				10	CINCINNATI	
11. Louisiana	76,556		45,000	1	DETROIT	24
12. Territories W. of these to the Pacific ocean.			Rest W. of the Missi.	0	St. Louis	
	1,088,315		985,000	25	Arkansas	31,530
					NEW-ORLEANS	
Total,	7,333,903		1,968,990	186		1,185,223

Population.] The number of inhabitants in the United States, in 1790, was 3,950,000; in 1800, 5,305,666; in 1810, 7,230,514. The increase in the first ten years was 1,355,666, and the ratio of increase $34\frac{1}{2}$ per cent. The increase in the second ten years was 1,924,848, and the ratio of increase $36\frac{1}{2}$ per cent.

The inhabitants of the United States are composed of three classes: Europeans and their descendents; Africans and their descend-

* Census of 1818 makes 67,694, without Lawrence and Marion counties.

† These new states will have their proportion of representatives in the next congress, making 4 or 5 more, and 6 new senators.

§ Mississippi, in 1816, had 74,746 souls.

|| The next census will probably fall little, if any, short of 10,000,000.

‡ In 20 states, are 40 senators; making in the United States' legislature, 226 members. This number in both houses, will be increased after the next census, and the addition of several new states.

ants ; and the Aborigines. These classes are ranged according to their respective numbers.

The first is made up of English, German, Dutch, French, Irish, Scotch, Swedish, Swiss, and Welsh emigrants and their descendants.

The great mass of the inhabitants are of English origin. New-England was settled entirely by Englishmen, except a few towns in the hilly country of the county of Hampshire in Massachusetts, which were settled by a colony from Ireland ; and a few in Londonderry in New-Hampshire. With these exceptions, the settled inhabitants of New-England are even now entirely of English origin. The English and their descendants, also, constitute a considerable majority of the inhabitants in the middle states, and a still larger majority of the white inhabitants of the southern states. Probably nine tenths of the inhabitants of European extraction are of this description. The Germans compose about one fourth part of the inhabitants of Pennsylvania. Considerable numbers of them are also found in New-York and New-Jersey. They speak their own language ; and have their own clergymen, schoolmasters, and newspapers. They generally speak, also, the English language. They are almost universally agriculturists, and Pennsylvania owes to them many of her improvements in agriculture. They are rising by slow degrees in education and scientific improvement.

The Dutch settled the state of New-York, and are still numerous and highly respectable there. Numbers of them are also found in New-Jersey and Pennsylvania. They are generally farmers, though numbers of them are found in almost every profession, and claim their full share of learning, respectability, and wealth. Those who are settled in the large towns and speak English, have no Dutch peculiarities. But the Dutch villagers retain, to a great degree, the customs and character of their ancestors, who migrated to America early in the 17th century.

A small colony of French Protestants settled on Staten Island, and at New-Rochelle, in the state of New-York. They were superior in their character to most colonists ; and several of their descendants have filled some of the highest offices in the United States. A number of respectable French families have, at various times, settled in Charleston, S. Carolina. A few others of this description are found in Boston, New-Jersey, and other states. The great body of the later French emigrants to the United States, are mere adventurers.

The Irish emigrants live principally in Pennsylvania. Considerable numbers also are found in New-York, New-Jersey, Kentucky, and are scattered in most parts of the United States. More than half of these are Catholics. The colonies in Massachusetts and New-Hampshire are from the north of Ireland, called Scotch Irish ; as are, likewise, many of the Irish in the middle states.

The Scotch are generally industrious, good citizens, well informed, honest, and moral. They have settlements in New-Hampshire, New-York, New-Jersey, Pennsylvania, and North-Carolina. Numbers of them are settled in the large towns, as merchants, booksellers, and other professions.

A considerable number of Swedes are found in New-Jersey, Pennsylvania, and Maryland. They are a peaceable and well informed people.

There is a settlement of Swiss in the Indiana Territory, who are engaged in the culture of grapes, and making wine.

Several small settlements of Welsh emigrants have been made in Pennsylvania and New-York. These are a very honest, industrious, sober people.

The second class of inhabitants are Africans, brought here in slave ships, or their descendants; no less than 1,185,223 of these degraded people are still held in slavery in this land of liberty and equal rights. Upwards of 186,000 people of color are freemen. Great numbers of those who make up these two classes, are but partially of African origin. The mulattoes in the low country of the southern states may probably, at some distant period, outnumber the genuine blacks.

The great body of the negroes are in the southern states, as may be seen in the Statistical Table, page 209. Their numbers in 1790 amounted to 697,697; in 1800 to 893,605; and in 1810, as above stated, to 1,185,223. The increase in the first ten years was 195,908; and the ratio of increase $29\frac{1}{2}$ per cent. The increase in the second ten years was 281,618.*

The Aborigines constitute a third class, and are far less numerous than either of the others. A few are found in each of the New-England states, and on the east end of Long Island. These have lost the little respectability, which numbers would give them, and are in a miserably degraded state. Considerable numbers of the Iroquois or Six Nations still remain in the western part of the state of New-York. They have very valuable possessions of land. The greater part of them are fast losing all that characterized their fathers. The Wyandots, and parts of the Delaware and Shawanese tribes, inhabit small territories in the states of Ohio and Indiana; about 3 or 4000 souls in all these tribes. The former have lately, by treaty, ceded the greater part of their charming lands on White river, to the U. States, and must soon retire beyond the Mississippi. In the Michigan and N. W. territories, the ancient patrimony of the Chipewas, are considerable numbers of Indians of this and several other tribes. The whole of the N. W. territory, W. of lake Michigan, is possessed by Indians. But the largest tribes who remain on the E. side of the Mississippi, are the Creeks, say 20,000; Cherokees, 13,500; Choctaws, 20,000; Chickasaws, 6,500; 60,000 in the whole, who inhabit some of the finest portions of the states of Georgia, Alabama, Mississippi, and Tennessee. It is probable that these Indians will, at no distant period, be constrained to migrate to the wildernesses on the W. of the Mississippi. Should this take place, it will operate unfavorably on the flourishing establishments† already made, and those

* See article Religious and Benevolent Societies.

† A particular account of these establishments will be given, in the states where they exist.

contemplated, by the American Board of Commissioners for Foreign Missions, for introducing among this long neglected people, improvements in arts, morals, and religion. The whole number of Indians, within the territory of the U. States, on this side of the Mississippi, is between 70,000 and 80,000.

Of the tribes on the W. of the Mississippi, within the limits of the U. States, as they have been described, we have no means to ascertain the names, even, of them all, much less their numbers. We shall give all the information we possess on this subject under the head of the *Western Territory* of the U. States, which see.

Manners and Customs.] The great body of the inhabitants of the United States are of English origin. Their character and manners, therefore, are formed on the English plan, varying from it however, and from each other, in consequence of the diversities in government, state of society, wealth, climate, and soil.

The governments of the several states, and of the union, are elective and popular. Every officer and magistrate is appointed, directly or indirectly, by the people. They pass every law, propose every measure, form every treaty, and dispose of all public property by themselves, or by those whom they elect to office. The effect of this state of things on public men has been, on the one hand, to check the pride of place and the insolence of office; and, on the other, to persuade many of them to descend to calumny, flattery, trimming, and falsehood. Its effect on the community at large has been to inspire, on the one hand, a high sense of personal independence, and a jealous care of national freedom: and, on the other, to impair the necessary distinctions in society, and put all men on a level; to give importance to mere numbers, and take it away from intelligence and worth; to show us, in a word, that there is no perfection in any thing under the sun.

In the Eastern states, property is more equally distributed than in any other civilized country. Religion, here, also, except in Rhode-Island, is, and always has been, supported by law. At present, not far from 2,000 clergymen, generally well informed and orthodox, and all chosen by the people themselves, are weekly and daily employed in enlightening and reforming their congregations. Schools are established within every little distance, and a grown person, a native of these states, can scarcely be found, who has not some acquaintance with reading, writing, and arithmetic. The inhabitants universally live in villages or towns of a moderate size, and have no overgrown capital, in which to learn profligacy of manners. The great body of them are farmers. These circumstances have given these states very much the manners and morals of Scotland.

In the Middle states, religion is not supported by law, and there are fewer clergymen in proportion to the population. Schools are not as numerous, nor as well directed, and considerable numbers of the inhabitants are unable to read or write. Property is less equally distributed; and the people are more divided, as in Europe, into rich and poor. Extensive tracts have been lately settled, and still experience all the disadvantages attendant on new settlements. The original settlers came over at different times, and for

different purposes; belonged to different nations, and spoke many different languages. They were not, generally, enlightened; had no oneness of interests, or views; pursued no *system* of institutions; and formed no settled habits. The English, Germans, Dutch, French, and Irish, still retain, in degree, their national languages, prejudices, virtues, and vices. They have settled generally by themselves, have little intercourse with each other, and little inclination or opportunity to form a common character. There are two large cities in these states, and the smaller towns are too prone to ape city manners and city life. The slaves are not sufficiently numerous here to have any material influence on the character of the people. The body of the inhabitants live on scattered farms, and cultivate their own lands. The elections are very corrupt; individuals acquire undue influence. Individuals and families are found, however, scattered in great numbers, over all this division, distinguished for their intelligence, their piety, their refinement, and their worth, men who would be among the best citizens of any country. The state of N. York, in consequence of the numerous immigrations from the eastern states, is becoming more and more assimilated to them, in her institutions and manners.

In the Southern states, also, religion is not supported by law, and large portions of the inhabitants enjoy no regular stated preaching. They live chiefly on plantations, and have not generally been provided with schools. Considerable numbers of the white inhabitants cannot read. Labor is generally done on the coast, by slaves, and by the poor. The division of the inhabitants into rich and poor is as in many countries of Europe. Slavery has tended to corrupt the public morals, and has produced other bad effects. The slaves, with few exceptions, are treated with humanity and kindness. Duelling is here common. Gouging is more rare than formerly. Horseracing and cockfighting, particularly the former, are favorite amusements. Many of the inhabitants, however, far from possessing this character, or practising these vices, hold them in abhorrence. The ladies, also, almost universally deserve the esteem of all those, who know how to value delicacy and amiable manners.

Languages.] The English language is almost universally spoken. All records are kept in it throughout the country, and all public business transacted. The German, Dutch, Swedish, Irish, Welsh and French are spoken more or less, and in all of them public worship is in some place or other regularly performed.

The German is spoken very extensively in Pennsylvania, and in parts of New-York.

Dutch is spoken by numbers in New-York and New-Jersey, and by a few in Pennsylvania.

Swedish is spoken by a few in New-Jersey, Pennsylvania, and Delaware.

The Irish in and near Philadelphia, and the interior of Pennsylvania, in considerable numbers, retain their native language.

A few Welsh settlements are scattered over the middle states.

French and Spanish, the former very generally, are taught in the large towns, and spoken, as their vernacular dialect, by many occasional residents, and by a few of the settled inhabitants.

The English of the middle states, owing to the influx of foreigners, is generally less pure than that of the northern or southern.

The pronunciation of English gentlemen, where it has not been corrupted by the stage, differs imperceptibly from the pronunciation of New-England.

Literature.] Few men, in America, have originally sufficient property, to justify them in devoting their lives to the pursuits of literature. Our colleges have no well endowed fellowships to supply this deficiency.* A government merely popular can never extend to learning, any thing like English patronage; and Mæcenases are indeed but rarely found in a country, where wealth or office is the general object of pursuit. The consequence is, that men of learning, *of the English stamp*, are seldom found in the United States. The regular clergy, however, throughout the states, are not, *as a body*, behind the English clergy in theological or general learning. Well informed men, and men of liberal education, are numerous along the seacoast, and in most of the large towns in the interior. In no country on the globe, except Scotland, is common learning so universally diffused as in the eastern states. In the best seminaries, the Greek, Latin, and Hebrew languages, Philology, Geography, Mathematics, Natural Philosophy, Chemistry, Logic, Rhetoric, and Theology, are taught by recitations and lectures, to an extent not surpassed, in the general course of instruction, at Oxford and Cambridge.

Universities.] This respectable title is given to a number of our literary institutions, in the different states. Those who are acquainted with *European Universities*, and our own, would very naturally suppose, with one or two exceptions perhaps, that the word had two quite different meanings in the two countries. Our Literary Institutions, of all grades, will be named and described under their proper heads, in the respective states to which they belong.

The following tables, compiled with great labor and accuracy, are inserted under this article as containing valuable information.

* The Theological Institution at Andover has a fund, given by the late venerable SAMUEL ABBOT, Esq. for the support of a number of Fellows; and some young gentlemen, who have honorably completed their education at the institution, have been placed on the foundations for the purpose of leisurely prosecuting their studies.

TABLE No. I.

Showing the whole number of Alumni, and the whole number of Ministers, at the principal Colleges in the U. S.; and the number of Alumni living, and the number of Ministers living, according to the latest information.

Name of the College.	Date of the Catalogue examined.	No. of Alumni.	No. of Ministers	Alumni living.	Ministers living.
Harvard	1818	4442	1198	1708	285
Yale	1817	3300	847	1658	357
Princeton	1815	1425	297	1023	147
Columbia	1814	608	67	*	*
Brown	1817	829	149	715	130
Dartmouth	1816	1190	263	992	228
Carlisle	1813	272	62	243	58
Williams	1817	473	112	434	107
Union	1813	291	33	280	32
Bowdoin	1816	85	2	90	2
Middlebury	1817	260	55	250	55
S. Carolina	1816	275	5	260	5
Total				7,643	1,406

A letter from a gentlemen in Lexington states, that there are now living 9 ministers who were educated at Transylvania University. An officer in William and Mary College in Virginia, says, in a letter dated February, 1818, "There has not been a minister educated here, for the last 20 years, I know; and I believe there has not been an instance of one since the Revolution."

If we estimate the number of ministers living, for Columbia College at 50, and 9 for Transylvania, and add them to the 1406 in the table, it will make the whole number for the 14 principal Colleges 1465.

* Not specified in the Catalogue. The number of ministers living is probably about 50 out of the 67.

UNITED STATES OF AMERICA.

TABLE NO. II.

Shewing the number of Graduates and Ministers of the principal colleges in the United States, for every period of ten years, from 1642 to 1810.

	1642 to 1650		1650 to 1660		1660 to 1670		1670 to 1680		1680 to 1690		1690 to 1700		1700 to 1710		1710 to 1720		1720 to 1730	
	Grad.	Min.	Grad.	Min.	Grad.	Min.	Grad.	Min.	Grad.	Min.	Grad.	Min.	Grad.	Min.	Grad.	Min.	Grad.	Min.
Harvard																		
Yale	45	26	71	35	69	29	49	27	89	44	123	68	122	68	151	75	365	1366
Total													160	97	208	110	506	1925
	1730 to 1740		1740 to 1750		1750 to 1760		1760 to 1770		1770 to 1780		1780 to 1790		1790 to 1800		1800 to 1810			
	Grad.	Min.	Grad.	Min.	Grad.	Min.	Grad.	Min.	Grad.	Min.	Grad.	Min.	Grad.	Min.	Grad.	Min.		
Harvard	312	116	239	73	270	93	422	123	408	65	579	76	396	74	452	60		
Yale	179	71	219	95	290	95	325	103	333	80	417	105	304	60	524	100		
Princeton			19	12	141	66	193	81	160	57	168	20	236	32	342	29		
Columbia					18	5	53	6	41	3	34	6	169	23	219	20		
Brown							11	4	49	17	92	20	198	45	256	48		
Dartmouth									98	~45	184	79	360	80	333	49		
Carleton											40	13	123	34	232	15		
Williams													94	23	158	71		
Union													31	8	158	25		
Rowdell															33	2		
Middlebury															93	31		
S. Carolina															79	3		
Total	401	187	477	180	719	229	1,004	317	1,089	267	1,314	319	1,911	570	2,792	453		

TABLE No. III.

Shewing the number of Graduates and Ministers at the above mentioned Colleges in four distinct periods between the settlement of the country and the year 1810.

Periods.	Whole number of Grad.	Number of Min.	Proportion of Min.	
100 years, from 1620 to 1720*	814	436	1-2	The colleges included in this period are Harvard & Yale from their establishment.
50 years, from 1720 to 1770	3197	1135	1-3	The colleges included in this period are Harvard & Yale for the whole period, & Princeton, Columbia, and Brown from their establishment.
40 years, from 1770 to 1810	7103	1418	1-5	The colleges included in this period are Harv., Yale, Princeton, Columbia, and Brown for the whole period, & Dartmouth, Carlisle, Williams, Union, Bowdoin, Middlebury and S. Carolina from their establishment.
10 years, from 1800 to 1810	2792	453	1-6	The colleges included in this period are the same as in that immediately preceding.

* For 18 years of this period no college was in existence. Harvard was not established before 1638.

TABLE No. IV.

Shewing what will be the population of the United States, and the number of collegially educated ministers 70 years hence, supposing both to increase in the proportion in which they have increased for 70 years past.

	Population.	Number of collegially educated Ministers.	
1818	9,000,000	1465	1 to 6,000 souls.
1841	18,000,000		
1864	36,000,000		
1887	72,000,000	3,000	1 to 24,000 souls.

The Arts.] The state of the arts corresponds with that of the literature of the United States. In the mechanic arts, and in painting, engraving, and architecture among the fine arts, there is as much native genius in the United States, as in any part of the world; and this genius, for the last few years, has been cultivated to a very considerable extent, and in some instances has rivalled the most splendid and useful exhibitions of it in the old world.

Religious and Benevolent Societies.] There are several institutions of this character, embracing either the whole, or large sections of the United States, descriptions of which properly come under this head.

1. *The American Board of Commissioners for Foreign Missions*, instituted in 1810. "The object of this Board is, to devise, adopt, and prosecute, ways and means for propagating the gospel among those, who are destitute of the knowledge of Christianity." The executive powers of this Board are vested in a *Prudential Committee* of five members. Their operations have been laborious and successful. They have made missionary establishments at Bombay and Ceylon, in India; have resolved on one at Jerusalem; and have already flourishing ones at Brainerd (*Chickamauga*) among the Cherokee, and at Eliot (*Yalo Busha*) among the Choctaw Indians, in our own country. Others are about to be made on Arkansas river, and among the Chickasaws. The annual receipts and expenditures of the Board have gradually risen to upwards of 30,000 dollars, and are increasing. It has auxiliary societies established throughout the country.

2. *The Baptist Board of Foreign Missions*, instituted in 1814, for the like purposes; who have missions in Burmah in the east, and among the Indians in the west. Their annual receipts and expenditures are between 20,000 and 30,000 dollars.

3. *The American Bible Society*, established in May, 1816. The seat of the operations of this society is in the city of New-York. Its sole object is "to encourage a wider circulation of the Holy Scriptures without note or comment." Its first president, the Hon. *Elias Boudinot*, gave to its funds the handsome donation of 10,000 dollars. In the course of the two first years of its operations, the society purchased six sets of stereotype plates, of different sizes, and issued 24,000 bibles. The number of auxiliaries at the end of the second year was 155.

4. *The United Foreign Mission Society*, composed of the Presbyterian, Reformed Dutch, and Associate Reformed Churches, instituted in 1817. They have yet made no public report of their operations.

5. *The American Society for educating pious Youth for the Gospel Ministry*, instituted in 1816. In the year ending Oct. 1, 1818, about 7,000 dollars had been expended in furtherance of their object. At the beginning of the year 1819, the society had nearly 200 beneficiaries on their list, hopeful youth, of piety and talents, to whom they were giving more or less assistance. This highly

useful society is prosperous, and well deserves the public patronage.

6. *Institution for improving the Education of pious Young Men, called to the Christian Ministry*, founded by the Baptists in 1818. The design of this association is sufficiently indicated by its title.

7. *The Education Society of the Presbyterian Church in the United States of America*, instituted 1818. Its object is the same as that of the American Education Society.

8. *New-England Tract Society*, established in 1814. At the end of two years after its establishment, this society had published 798,000 tracts of different kinds, constituting four complete volumes.

9. *American Society for colonizing the People of Color of the United States*, established in 1816. The object of this association is expressed in its title. Agents have been sent, under its direction, to survey the western coast of Africa, with a view to fix on an eligible situation for planting a colony. Their report, highly favorable and interesting, was made in Dec. 1818, recommending the country of *Sherbro*, or near it, as in all respects best adapted to the purposes of the society.

In our account of the different states, other institutions of this kind will be mentioned.

Army, Military Posts, and Militia.] Standing armies are deemed inconsistent with a republican form of government. The grand defence of a country is its militia. No more troops are retained in service in time of peace, than are deemed necessary to protect and keep in repair the military posts on the frontiers and coasts of the United States. These amount to about 5 or 6000, the expense of whose support, for the year 1818, was 3,599,245 dollars. In 1802, there were 27 military posts in the U. States; in 1818, 73. Among these are the following.

On the Gulf of Mexico frontier. 1. *Barrataria*, on the west end of Grand Terre, commanding the entrance into Barrataria bay. 2. *Plaquemine Turn*, on the banks of the Mississippi, 60 miles below New-Orleans. 3. *Bayou Bien Venue*, near lake Borgne, covering the approach to New-Orleans through the lake. 4 and 5, *Chef Menteur*, and *Regalets*. These two works are on the margin of the passages into lake Ponchartrain, covering the approach to the rear of New-Orleans, and the country above. 6 and 7, *Mobile Point* and *Dauphin Island*. These two command the entrance into Mobile bay. The cost of these works is estimated at 3,000,000 dollars.

On the Chesapeake Bay. The fortifications here, are to be located at the entrance of *Hampton Roads*, at *Old Point Comfort*, and on *Rip Rap Shoal*, each to mount 250 cannon. Cost estimated at 3,000,000 dollars.

On Delaware Bay. The key to the water approach to this bay, is the *Pea Patch*, which is an island of soft mud. This fortress, of 120 cannon, is to be strengthened by the occupancy of the adjacent Delaware and New-Jersey shores, and two steam batteries. Cost estimated at 300,000 dollars.

New-York Harbor. In addition to the fortifications which have already been here made, is a castellated tower, at the *Narrows*, on Hendrick's reef, with 96 cannon ; cost 275,000 dollars. To be occupied in future, in order to complete the defence of New-York, are *Sandy Hook, Staten island, the west end of Long island, Brooklyn heights, and Frog point*, on the Sound.

The surveys of the eastern and southern Atlantic states have not been completed. Fortresses have been erected in most of the principal towns along the coast, and are occupied by troops.

The following are the military establishments made and supported by the government. Two *armories*, one at Springfield, Mass. the other at Harper's Ferry, on the Potomac, Virginia ; 4 *arsenals*, 1 at Watertown, Mass. 1 at Watervliet, New-York, 1 at Pittsburgh, Pennsylvania, 1 at Augusta, Georgia ; and a *powder magazine*, at Frankford, near Philadelphia. At West Point, New-York, the United States have a *military academy*, where young men are educated for the army.

From the report of the secretary of war, (Dec. 1818,) recommending to congress the opening and constructing of *roads and canals*, with a view to military operations, &c. it appears, that the United States troops have made a road from Plattsburgh to Sackett's harbor, N. Y. and have completed 50 miles at one end of a road from *Columbia*, in Tennessee, to *Madisonville*, in Kentucky, with causeways and bridges of durable materials, and about 40 miles, at the other end, in like manner :—and a distance of 70 miles of a military way from Detroit to the Miami of the Lakes, executed in the best manner ; the road being 80 feet wide, causewayed in more than 60 places, and having bridges of considerable length, one of which, now building, is 450 feet long, and constructed of timber. These are the only *military roads* which had been commenced the beginning of 1819.

Militia. The following official documents give the best view we possess, of the militia of the United States.

Abstract from a return of the Militia of the United States—laid before Congress by the President, February 13, 1813.

States & Territories.	Infantry, rank & file.	Artillery, rank & file.	Cavalry, rank & file.	Riflemen, rank & file.	Date of re- turn.	AGRE- GATE.	Ps. of can.	Muskets.	Rifles.	Pairs of pistols	Swds. cav. & artillery.
New-Hampshire	18201	710	1776		1812	24405	28	15378		1720	720
Massachusetts	55158	2564	2169		1812	70530	157	48094	1376	230	2358
Vermont	15543	503	1035		1809	20273	6	11525		1041	1099
Rhode-Island	3204	30	80		1811	4211	2	3505		88	87
Connecticut	16097	565	6061		1812	21666	25	14020		2309	1794
New-York	75876	3251	5191		1812	98605	51	38918	4791	5890	4781
New-Jersey	28095	668	1350	40	1811	33891	26	14909	197	528	1989
Pennsylvania	94723	246	1759	2086	1812	99414	34	no ret.			
Delaware	6475	81	116	32	1810	7451	11	340		59	59
Maryland	28123	403	1135		1811	32189	n.r.				
Virginia	60248	1720	4194		1811	75780	33	14990		1547	2817
North-Carolina	42944	120	1150		1812	50992		23873	7404	576	2783
South-Carolina	25194	914	1587	3104	1811	33729	34	11243	5496	1369	1440
Georgia	21076	117	625		1810	25729	5	5182	3479	250	330
Kentucky	35488	53	539	2358	1811	44422		5540	18175	345	531
Tennessee	25910		357		1812	29183		4626	9419	120	100
Ohio	27104	70	793	2336	1811	35277	5	4927	9746	389	1095
Louisiana	no ret.										
District of Columbia	2088		62		1812	2252	1	628	50	60	120
Mississippi Territory	4372		240		1812	5221		797	805		14
Indiana Territory	3630				1811	4160		130	1109		
Illinois Territory	no ret.										
Missouri Territory	do.										
TOTAL - -						719449					

* Including officers.

† 19086 fusils.

‡ 9000 fusils.

The returns made to the department of war, Dec. 1818, loose as they are, exhibit the following result.

Massachusetts,	70,736	South-Carolina,	no return
New-Hampshire,	25,794	Georgia,	no return
Rhode-Island,	8,350	Kentucky,	25,745
Connecticut,	20,593	Ohio,	61,438
Vermont,	no return	Tennessee,	no return
New-York,	112,586	Louisiana,	9,894
New-Jersey,	35,169	Indiana,	no return
Pennsylvania,	118,018	Mississippi,	no return
Delaware,	no return	Illinois,	2,123
Maryland,	no return	Missouri Territory,	6,502
Virginia,	85,758	Michigan Territory	no return
North-Carolina,	50,587	Alabama Territory,	no return

From such data as the above facts present, the militia of the states from which the returns are wanting, may be estimated at 150,000 ; which, with the returns that are received, will make the total upwards of 800,000. We are quite sure, if the returns were as precise as they might be, that the numbers enrolled in the militia would be found considerably to exceed a million.

Navy.] The navy of the United States, in the beginning of the year 1819, consisted of the following vessels. •

Rank.	No.	Rate.	Guns.
Ships	5	74	370
Frigates	5	44	220
_____	3	36	108
_____	2	32	64
Ships	3	24	72
_____	1	22	22
_____	4	18	72
_____	1	14	14
Brigs	1	20	20
_____	5	18	90
_____	1	16	16
_____	1	14	14
Schooners	1	16	16
_____	1	12	12
_____	4	6	24
_____	1	4	4
_____	1	2	2
_____	1	1	1
Sloop	1	1	1
	42		1142

Beside the above are 2 ships, 3 Brigs, and 2 Schooners, the number of guns not mentioned.—Also the Fulton steam frigate, 18 barges, 6 galleys, of 2 guns each, 1 anchor hoy, 1 felucca of 2 guns, 2 launches, and 7 gun-boats.

There are 5 large ships now on the stocks, viz. 1 at Norfolk, 1 at Washington, 1 at New-York, 1 at Charlestown, (Mass.) and 1 at Portsmouth, (N. H.)

In April, 1816, Congress passed an act for the gradual increase of the navy of the United States, and granting one million dollars per annum for eight years, for that purpose. This act authorizes the president of the United States, to build 9 ships of 74 guns, and 12 of 44 guns.

The estimated amount of the expenses for the navy, for the year 1817, (including the million for permanent increase of the navy,) was \$3,986,658, 75 cts.

Revenue.] The revenue of the United States arises from duties on the tonnage of vessels entered at the various custom-houses, on imported goods, wares and merchandize, internal duties, direct tax, postage, public lands, and other miscellaneous sources.

The annual expenditures are for the military, Indian, and naval departments, foreign intercourse, Barbary powers, civil list, and miscellaneous civil.

The aggregate amount of the *Receipts*, and *Expenditures*, for the objects above mentioned, from the commencement of the government, March 4th, 1789, to 31st March, 1815, were as follows :

From 4th March, 1789, to 31st Dec. }	Receipts.		Expenditures.	
	dolla.	cts.	dolla.	cts.
1791	4,418,913	99	1,718,129	37
1792	3,661,932	31	1,766,077	15
1793	4,614,423	14	1,707,348	28
1794	5,128,432	87	3,500,348	20
1795	5,954,534	59	4,350,596	45
1796	7,137,527	65	2,531,930	40
1797	8,303,560	99	2,833,590	96
1798	7,820,575	80	4,623,223	54
1799	7,475,773	31	6,480,166	72
1800	10,777,709	10	7,411,369	97
1801	12,846,530	95	4,981,669	90
1802	13,668,233	95	3,737,079	91
1803	11,064,097	63	4,002,824	24
1804	11,826,307	38	4,452,858	91
1805	13,560,693	20	6,357,234	62
1806	15,559,931	7	6,080,209	36
1807	16,398,019	26	4,984,572	89
1808	17,060,661	93	6,504,338	85
1809	7,773,473	12	7,414,672	14
1810	9,384,214	26	5,311,082	28
1811	14,423,529	9	5,592,604	86
1812	9,801,132	76	17,829,498	70
1813	14,340,409	95	28,082,396	92
1814	11,181,625	16	30,127,686	38
From 1st Jan. to 31st March, 1815, }	2,837,058	21	12,337,825	43
		<hr/>		
		247,019,302 79	184,719,336 43	

During this period the receipts from the

Customs were	8222,530,374 56
Internal Revenue	9,016,342 24
Direct taxes	4,476,826 53
Postage of letters	747,388 40
Sales of public lands	8,658,369 38
Miscellaneous	1,590,001 68
<hr/>	
247,019,302 79	

The *expenditures*, during the same period, were

Military department,

For pay and subsistence of the army	88,270,562 85
Fortifications of ports and harbors	4,374,805 26
Fabrication of cannon	263,611 54
Purchase of saltpetre	150,000
Additional arms	300 000
Arming and equipping the militia	1,100,000
Detachment of militia	170,000
Services of militia	2,000,000
Services of volunteers	1,000,000

97,628,979 65

Indian department,

Holding treaties	878,313 68
Trading houses	439,726 98

1,338,040 66

47,818,303 68

Naval department,

Foreign intercourse (exclusive of Barbary powers.) and including the sum of \$6,361,000 paid un- der the convention with Great- Britain of 8th Jan. 1802. and with France of the 30th April, 1803	10,678,015 34
Barbary powers	2,405,322 40
Civil list	14,940,695 79
Miscellaneous civil	9,909,978 91

184,719,336 43

Other expenses, relating to payment of foreign loans, domestic and foreign debt &c. during the above period	167,840,856 70
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Whole *Expenditure* of U. States to Mar. 31, 1815 \$352,560,193 13

The actual *receipts* from the various sources of revenue from March 31, 1815, to June 30, 1816, were \$36,595,141 11. The *expenditures*, for the same period, amounted to \$29,503 172 57.

The expenses of the peace establishment, for 1817, by estimate, were

For civil, diplomatic, and miscellaneous expenses	\$1,765,513 3
Military department	5,959,625 79
Indian do.	200,000
Naval do.	3,986,658 75

Total \$11,911,797 57*

* See Mr. Pitkin's Stat. View of the commerce of the United States, 2d. edit. p. 381.

Public Debt.] The following table contains a statement of the existing debt, on the first day of each year, from 1791, to 1810, inclusive, together with the payment on the principal, the amount of debt contracted, and the increase or decrease during the year.

Year.	Amount of debt.	Payment on the principal.	Debt contracted.	Increase or decrease.
1791	75,463,467 52	3,324,842 86	5,089,291 00	+1,764,448 14
1792	77,227,924 66	2,056,208 86	5,180,918 24	+4,124,709 38
1793	80,352,634 04	3,189,932 63	1,264,703 36	—1,925,229 77
1794	78,427,404 77	2,420,520 74	4,740,703 36	+2,320,182 62
1795	80,747,587 39	2,949,415 32	5,964,000 00	+3,014,584 68
1796	83,762,172 07	2,097,692 74	400,000 00	—1,697,692 74
1797	82,064,479 33	2,835,950 21		—2,835,950 21
1798	79,228,529 12	1,027,324 42	207,465 07	— 819,859 35
1799	78,408,669 77	1,144,075 42	5,611,700 00	+4,567,624 58
1800	82,976,294 35	1,419,943 55	1,481,700 00	+ 61,756 45
1801	83,038,050 80	2,325,418 55		—2,325,418 55
1802	80,712,632 25	3,657,945 95		—3,657,945 95
1803	77,054,686 30	5,627,565 42	15,000,000 00	+9,372,434 59
1804	86,427,120 88	4,114,970 38		—4,114,970 38
1805	82,312,150 56	6,588,879 84		—6,588,869 84
1806	75,223,270 66	6,504,872 02		—6,504,872 02
1807	69,218,398 64	4,022,080 67		—4,022,080 67
1808	65,196,317 97	8,170,125 88		—8,173,125 88
1809	57,023,192 09	3,850,889 77		—3,850,889 77
1810	53,172,302 32	5,163,376 09	2,750,000 00	—2,413,376 00
		72,495,022 23	47,790,481 03	

Hence it appears, that the original debt, in 1791, was \$75,463,467 52 cts.; and that the debt contracted since amounts to \$47,790,481 03; making a total of \$123,253,948 55; that of this sum there was paid off before Jan. 1st, 1811, \$72,495,022 23, leaving, at that time, an existing debt of \$53,172,302 32; which is less than the original debt, by \$22,291,165 20.

In June, 1812, when war was declared against Great-Britain, the national debt was reduced to \$36,656,932 07
 This war added to the national debt 75,450,930 28

Total, Jan. 1, 1817,	112,107,862 25
do. 1818,	99,911,845 41

National Funds.] These consist of stock, custom house bonds, lots in the city of Washington, and public lands. In 1810, the custom house bonds amounted to \$9,600,000.

The total valuation of the whole United States in that year by Blodget was 2,519,009,090 dolls.* The circulating medium was calculated at from 15,000,000 to 20,000,000 dolls. in specie.

In 1813, the commissioners of the land office, estimated the lands then belonging to the United States, east of the Mississippi, at

* This must exceed the truth very considerably. See next page.

400,000,000 acres ; to 56,225,000 acres of which, the Indian title had been extinguished. The quantity *west* of the Mississippi, cannot be determined, till our northern and western boundaries are settled.

Total sales of lands N. W. of Ohio, from } 10,175,637 61 $\frac{3}{4}$ acs.
the opening of the land offices, to Sep. 30, 1818, } for \$21,545,797 45

Total sales of lands in Mississippi and Al- } 2,514,111,04 acres,
abama, from the opening of the land offices to } for
Sept. 30, 1818. } 7,950,660 31 cts.

The amount of the valuation of houses, lands, and slaves, in all the states, in 1814-15, was 1,902,296,961 dolls. 34 cts. of which 270,639,737 dolls. 17 cts. was the estimated value of slaves—so much property in human flesh, is held in the U. States.

The increase of property in the U. States, in 15 years, from 1799 to 1814 was 950,293,808 dolls. In the state of N. York, the increase in this period, was 175 millions, and in Pennsylvania upwards of 240 millions.

The average value of land, in the United States, is about 10 dolls. per acre.

Mint.] The mint was established in 1791. The purity of the silver coin is the same with that of Spain ; that of the gold coin with that of the strictest European nations. The amount of gold, silver, and copper, coined in the year 1804, was, gold 258,642 dolls. silver 100,340, copper 12,844 94, total 371,826 94 ; in 1810, gold 476,555, silver 638,773 50, copper 16,140, total 1,131,468 50. The gold coins are eagles, half eagles, quarter eagles and dollars. The silver are dollars, half dollars, quarter dollars, dimes, and half dimes. The copper are cents and half cents. The denominations increase and decrease in a tenfold proportion. In ordinary computation, the only denominations used are dollars, cents, and mills. These last are merely nominal.

Post Office.] The amount of postage from Jan. 1st, 1790, to Oct. 1st, 1809, was 5,305,093 dollars ; and the expenses of the establishment 4,549,601 dolls. 55 cts. nett proceeds 755,492, in 19 years. For the succeeding 7 years to 1816, the income amounted to 729,826 dolls. 19 cts. The number of post offices in the year 1791 was 89.

THE following Table exhibits a view of the progress of the POST-OFFICE DEPARTMENT.

The several periods referred to.	Number of Post-Offices.	Length of the post roads.	Weekly transportation of the mail in stages.	Weekly transportation of the mail in sulkies and on horseback.	Weekly transportation of the mails.	Yearly transportation of the mails.
<i>Periods.</i>	<i>Number.</i>	<i>Miles.</i>	<i>Miles.</i>	<i>Miles.</i>	<i>Miles.</i>	<i>Miles.</i>
1793	209	5,642	8,567	7,662	16,229	843,908
1797	554	16,180	14,992	19,708	34,610	1,799,720
1801	1,025	21,840	24,490	34,380	58,870	3,061,964
1803	1,258	25,315	30,172	37,228	67,400	3,504,800
1807	1,848	33,755	41,528	45,000	86,528	4,499,456
1811	2,403	36,406	46,380	61,171	107,550	5,592,652
1816	3,260	48,976	71,046	74,516	145,562	7,569,224
1817	3,459	51,600				

The mail is transported in stages, each day in the year, 10,121 miles.

The mail is transported in sulkies and on horseback, each day in the year, 10,616 miles, making 20,737 miles per day.

If you divide the post roads of the United States into two distinct post routes, the mail will travel each week, in *stages*, nearly equal to three times around the globe; and divide all the post roads, in the United States into four equal or distinct post routes, on which the mail is carried in *stages*, *sulkies*, and on horseback, it will be equal to a travel of six times, *each week*, around the globe, veraging one post-office for every fifteen miles of post road.

The mail is transported, by a direct or corresponding line of stages, from Anson, in the district of Maine, *via* Washington city, to Nashville, Tennessee, a distance of *one thousand four hundred and forty-eight miles*, in a south-western direction. The mail is transported, by a direct line of stages; from St. Mary's, in Georgia, to Highgate, in Vermont, *via* Washington city, a distance of 1,369 miles, in a northern direction.

The amount of postage, in 1808, did not equal the expense of the establishment.* In 1815, the revenue from the Post-Office was \$294,944.

Banks.] A bank of the United States, which was incorporated Feb. 25th, 1791, expired March 4th, 1811, congress refusing to renew the charter. Branches of this bank were established in Boston, New-York, Baltimore, Washington, Norfolk, Charleston, and Savannah. The capital was 10 millions of dollars. Before this event, the whole number of banks was 95, and the amount of banking capital was estimated at 55 millions of dollars.†

A new United States bank was established in 1816. with a capital of 35 million dollars; and branches instituted, at Portsmouth (N. H.) Boston, Providence, Middletown (Con.) New-York, Baltimore, Washington city, Richmond, Norfolk, Fayetteville (N.C.) Charleston, Savannah, Lexington (K.) Louisville (K.) Chillicothe (O.) Cincinnati (O.) New-Orleans and Pittsburgh (P.)

The whole number of banks in the United States, in the beginning of the year 1819, exceeded 400. They are most numerous in Kentucky and Pennsylvania—there being 55 in the former, and 45 in the latter, in 1818—and since increased.

Cities.] The principal cities and towns in the United States, placed according to their population in 1810, are as follows:—

<i>Cities.</i>	<i>Population, 1810.</i>	<i>State.</i>
New-York	96,373	New-York
Philadelphia	92,247	Pennsylvania
Baltimore	46,555	Maryland
Boston	33,250	Massachusetts
Charleston	24,711	S. Carolina
New-Orleans	17,242	Louisiana
Salem	12,613	Massachusetts
Providence	10,071	R. Island
Richmond	9,735	Virginia
Albany	9,356	New-York
Norfolk	9,193	Virginia
Washington city	8,208	Col. District
Newark	8,008	New-Jersey
Newport	7,907	R. Island
Portland	7,169	D. Maine
New-Haven	6,967	Connecticut
Portsmouth	6,934	New-Hampshire
Savannah	5,195	Georgia

* Table of Post-Offices, 1817.

† Blodget.

Roads.] The United States, with regard to the facility of making roads, and keeping them in repair, may be considered under three divisions. The country north of 41° , including New-England and the state of New-York, is the first, and the most advantageously situated. In almost every part of this district the materials for roads are at hand, and can be procured at a small expense. In New-England, also, the soil is generally a hard loam, on which the heaviest wheels make little or no impression. In New-York it is generally clay. In this respect New-York is unfortunate. But the whole of this district is usually covered with snow in the winter. The snow is serviceable in various ways: it preserves roads from heaving in consequence of frost; it hinders them from being frozen deep, and thus enables them to dry early in the spring: it furnishes an easy way of transportation for heavy articles in sleighs and sleds, and thus, at once saves the roads from being injured by wheels during the winter, and prevents the necessity of using them in the opening of the spring. Between 36° and 41° N. the ground, not being covered with snow, is constantly freezing and thawing during the winter, and the roads heave with every frost. All heavy transportation is effected on wheels, and the roads, during the winter and spring, are rutted to such a degree, as to be made almost impassable. The soil, throughout this territory, is, to a great extent, clay; which renders the effect of wheels, in the spring, still more unfortunate. The materials for making roads are here generally at hand. Below lat. 36° the roads are never materially injured by the frost, though in the low country, they are much injured by rains, and the ground is cut up by wheels in the spring, so as to render them, in some places almost impassable. Over this whole extent, from the coast to 100 or 200 miles back, the country is a dead level, and generally a sandy plain with a thin covering of soil. The roads in many parts, are a deep, heavy sand, and no stones or gravel can be procured within any suitable distance, to make them better. In the back country good roads may generally be made at no very great expense.

The great post road of the United States is that leading from Maine to Georgia, in the general direction of the coast, and passing through the principal sea-ports. Its length from Robbinstown (Maine,) to St. Mary's (Georgia,) is about 1621 miles. This road is generally good, as far as Philadelphia; thence southward it is in great part indifferent. It has been proposed to turnpike this road through its whole extent. The estimated expense is 4,800,000 dollars. This estimate is doubtless too low. Dr. Ramsay, projected a *road of health*, as he styled it, to pass from Georgia to Maine, along the eastern foot of the Allegany mountains and highlands of New-England. Roads lie on both sides of Connecticut river through its whole length, a distance of 400 miles. They are generally good. A road has been begun, which is to run 150 miles from Quebec, and to meet them at the 45th degree of latitude.

A connected line of turnpike roads has several years been completed between Boston, through Northampton, Albany and Utica, to Niagara river.

A turnpike of some years standing has been formed from Philadelphia, through Lancaster, to Pittsburgh. This is the most frequented road from the Atlantic to the Ohio. From Pittsburgh, roads branch out, in various directions, through the western country.

In New-England good roads are found every where, and the number of turnpikes is very great. The states of New-York and Pennsylvania have already done, and are still doing, much in this way. In the western country, extensive improvements are now making. In the southern states the subject has been till lately almost wholly neglected. A road is now opened from Washington through Richmond, Raleigh, Fayetteville, Columbia, Augusta, Milledgeville, Alabama, to New-Orleans. This is the most direct route from the eastern states to New-Orleans. A road strikes off from this, at Fayetteville, and passes through Georgetown, Charleston, near Beaufort, Savannah, Sunbury, Darien, to St. Mary's. Another road is opened from Pittsburgh to St. Louis, through Columbus, Chillicothe, Lexington, Kaskaskia, and Cahokia; and from Lexington, S. through Danville, Nashville, over the Muscle Shoals, through M'Intoshville, the Choctaw nation, to Natchez, and thence to New-Orleans. Another road strikes off S. W. from Chambersburgh, on the road from Philadelphia to Pittsburgh, through Winchester, Staunton, Lexington, Abingdon, to Knoxville, thence to Nashville. Various other roads have been proposed, and some of them, probably will be completed by government: one from Philadelphia to the confluence of the Conemaugh and Loyalhammon branches of the Alleghany, a distance of 220 miles; a second from Washington to the confluence of the Monongahela and Cheat rivers, a distance of 150 miles; a third from Richmond in Virginia to Morris's, below all the falls on the great Kanhawa, 210 miles; a fourth from Charleston to the Tennessee, more than 300 miles. These four roads cross the Alleghany mountains, and their expense is estimated at 2,800,000 dollars.

Two other roads will probably command immediate attention: one from Detroit to the Tuscarora branch of the Muskingum; a second from the north bank of the Ohio, opposite the point where the Cumberland road strikes the same, through St. Clairsville, to Columbus, thence to the western line of the state of Ohio, in a direction to St. Louis, in Missouri.*

Inland Navigation.] The great inland navigation, furnished by the northern boundary of the United States, has already been described. The chief interruptions of this navigation, between the bottom of lake Superior and the gulf of St. Lawrence, are the falls of St. Mary's, those of Niagara, and several in the St. Lawrence, between lake Ontario and Montreal. A canal, on the British side,

* See page 221.

has already been completed around the first. The expense of a canal 10 miles in length around the falls of Niagara, large enough to receive the vessels of the lakes, is estimated at 1,000,000 dollars. The elevation of lake Erie above lake Ontario is estimated at 450 feet, and that of lake Ontario above the river at Montreal 200 feet.

An inspection of the map of the United States will shew, that, if four interruptions were removed, they would possess a *tide-water inland navigation* from Massachusetts to the St. Mary's. These interruptions are the tract between Boston harbor and Taunton; that between Brunswick, on the Rariton, and Trenton, on the Delaware; that between Christiana creek and Elk river; and that between Elizabeth river, in Virginia, and the Pasquotank, in North Carolina. The whole distance across all these tracts is 98 miles. Were four canals completed in these places, vessels might pass from Boston harbor up the canal to Taunton river, down that river and Narragansett bay, and up the Sound to New-York; across York bay, up the Rariton, and the canal to Trenton; down the Delaware, along the canal, and down the Chesapeake, to Norfolk; up Elizabeth river, and along the canal to Pasquotank; and thence between the main land and a chain of islands to St. Mary's. The length of the first canal would be 26 miles, at an estimated expense of 1,250,000 dollars; that of the second 28 miles, at an expense of 800,000 dollars; that of the third 22 miles, at an expense of 750,000 dollars; and that of the fourth 22 miles, at an expense of 250,000 dollars: making a total of 3,050,000 dollars. It should be observed, however, that 200,000 dollars have been laid out on the third, and that the fourth is already completed, though not to the necessary width. The expense of these canals is estimated on the supposition that they are to be adapted to vessels drawing 8 feet water.

There is no inland navigation on the southern frontier. The navigation of the Mississippi and Missouri, on the west, have already been described.

Four of the rivers of the Atlantic rise near the waters of the St. Lawrence. The Kennebec heads near the Chaudiere; and the Connecticut near the St. Francis. There is no probability that these rivers will be connected by canals.

The Hudson, which is little more than a long narrow bay, likewise approaches the waters of the St. Lawrence. Fort Edward, 50 miles above Albany, is only 23 miles from Whitehall at the head of lake Champlain. A canal connecting these two places will be completed in 1819. Another canal is necessary to enable boats to pass the falls in the Hudson near Waterford, the expense of which is estimated at 275,000 dolls. This canal would divert from Canada the trade of half the state of Vermont, and of the northern part of New-York.

The great Western Canal, which is to connect the waters of lake Erie, with Hudson's river, has been successfully commenced. The middle section of it from Seneca river to Utica, 94 miles will be completed, and in a navigable state, this year, (1819.) The whole

length of this canal, from lake Erie to Hudson's river, is 260 miles. The calculation is, that it will be completed in 1825. The finished portions of the canal will be immediately productive.

The waters of lake Erie are much higher than those of the Hudson, and the canal is to descend constantly and regularly as it proceeds eastward. It is proposed that it should pass over Genessee river, Seneca and Cayuga lakes, in aqueducts. The state of New-York is now engaged in this great national work, at a calculated expense of 5 millions of dollars. The object of it is to turn the trade of the western country from Montreal, to the city of New-York.

Manufactures, Inventions, and Fine Arts.] Our account of American manufactures will be taken from the report of the secretary of the treasury, of April, 1810, unless otherwise stated. The importations and exportations are taken on the average of 1806 and 1807.

The estimated amount of manufactures in 1810, was 172,762,676 dollars. In 1813. it was upwards of 200,000,000 dollars.

The following summary will shew, what are the manufactures of the United States, and their amount in 1810, taken from the returns of the Marshals and Secretaries of the territories, and exhibits the respective values of the several descriptions or branches of manufactures, excluding doubtful articles.*

1. Goods manufactured by the loom, of cotton.	}	\$ 39,497,057
wool, flax, hémp, and silk, with stockings,		
2. Other goods of those five materials, spun,		2,052,120
3. Instruments and machinery manufactured,	}	6,144,466
value, \$186,650, carding, fulling and floorcloth,		
stamping machinery, value, \$5,957,816,		
4. Hats of wool, fur, &c. and of mixtures of	}	4,323,744
them,		
5. Manufactures of iron,		14,364,526
6. Manufactures of gold, silver, set-work, mixed	}	2,483,912
metals. &c.		
7. Manufactures of lead,		325,560
8. Soap, tallow candles, wax and spermaceti,	}	1,766,292
spring oil, and whale oil,		
9. Manufactures of hides and skins,		17,935,477
10. Manufactures from seeds,		858,509
11. Grain, fruit, and cane liquors, distilled and	}	16,528,207
fermented,		
12. Dry manufactures from grain, exclusively	}	75,766
of flour, meal, &c.		
13. Manufactures of wood,		5,544,708
14. Manufactures of essences and oils, of and	}	179,150
from wood,		
15. Refined, or manufactured sugars,		1,415,724
16. Manufactures of paper, paste boards, cards, &c.		1,939,285

* See Rees' Cyc. Art. United States.

17. Manufactures of marble, stone and slate,	462,115
18. Glass manufactures,	1,047,004
19. Earthen manufactures,	259,720
20. Manufactures of tobacco,	1,260,378
21. Drugs, dyestuffs, paints, &c. and dying,	500,382
22. Cables and cordage,	4,243,168
23. Manufactures of hair,	129,731
24. Various and miscellaneous,	4,347,601

\$127,694,602

The following is an estimate of the value of the manufactures of the United States (excluding the doubtful articles) digested by states, districts and territories, formed by a consideration of all the reported details, and by a valuation of all the manufactures, which in the returns are entirely or imperfectly returned.

Maine (District)	3,741,116	North Carolina	6,653,152
Massachusetts	21,895,528	Tennessee	3,611,029
New-Hampshire	5,225,045	South Carolina	3,623,595
Vermont	5,407,280	Georgia	3,652,481
Rhode Island	4,106,074*	Orleans Territory	1,222,357
Connecticut	7,771,928	Mississippi do.	419,073
New-York	25,370,289†	Louisiana do.	200,000
New-Jersey	7,054,594	Indiana do.	300,000
Pennsylvania	33,691,111	Illinois do.	120,000
Delaware	1,733,744	Michigan do.	50,000
Maryland	11,468,794	Columbia (District)	1,100,000
Virginia	15,263,473		
Ohio	2,894,290		
Kentucky	6,181,024‡		

Dolls. 172,762,676

The manufactures of *wood* are household furniture, carriages of every kind, and shipbuilding. Furniture and carriages are annually exported to the amount of 170,000 dollars. More than 110,000 tons of shipping were annually built between 1801 and 1807, which were worth upwards of 6,000,000 of dollars. Two thirds of these were registered for the foreign trade, and one third licensed for the coasting trade and fisheries. The whole annual value of the manufactures in wood, is 20 millions of dollars. Here also should be mentioned pot and pearl ashes, of which 7400 tons are annually exported.

The manufactures of *leather* are principally boots, shoes, harness, and saddles. There are annually imported 3250 pair of boots, and 59,000 pair of shoes; and 8500 pair of boots, and 127,000 pair of shoes are exported. About one third of the hides are imported from Spanish America. The annual value of leathern manufactures is estimated at 20 millions of dollars.

* The increase of the cotton manufactures of this State, from 1810 to 1813, was estimated to be 33 and one third per cent.

† In 1812, the Marshal's estimate of the manufactures in this State was 33,387,566 dolls.

‡ In one year after 1810, the production of *hemp*, the greatest raw material in this State was doubled. The supply of saltpetre, was represented as *very great*.

Soap and tallow candles are manufactured principally in families. Of soap 470 000 lbs. and of tallow candles 158,000 lbs. are imported, and 2,220,000 lbs. of soap, and 1,775,000 lbs. of tallow candles are exported. The annual value of both these manufactures is 8 millions of dollars. *Spermaceti* candles are annually exported to the amount of 230,000 lbs. and *spermaceti* oil to the amount of 44,000 gallons. The annual value of manufactures in both articles, is 300,000 dollars.

The annual importation of refined sugar, from 1803 to 1807, was 47,000 lbs. and the exportation 150,000 lbs. The whole quantity manufactured in 1810, was estimated at 5 million lbs., worth one million dollars. The capital employed is 3,000,000 dollars. Besides the above articles, *flaxseed, oil, coarse earthenware, snuff, chocolate, hairpowder, and mustard* are manufactured, in quantities more than sufficient to supply the home consumption, the exportation exceeding the importation. It appears from actual returns made, that in 1810, 9,665,106 lbs. of *mafle sugar*, were manufactured in only 8 out of 26 districts in the United States. With due pains this valuable manufacture might be increased to a great extent.

Cotton, wool, and flax are manufactured extensively, both in establishments and in families.

At the close of 1810, there were in operation 87 mills for manufacturing *cotton*, working 80,000 spindles, attended by 500 men and 3500 women and children; employing a capital of 4,800,000 dollars; consuming 3,600,000 lbs. of cotton, worth 720,000 dollars; and yielding 2,880,000 lbs. of yarn, worth 3,240,000 dollars. The cotton cloths made are bed-ticking, stripes and checks, ginghams, cloth for shirts and sheeting, counterpanes, webbing, and coach-laces, diapers, jeans, vesting, cotton kerseymeres, fustians, cords, and velvets. The manufacture of cotton in families is very considerable.

Wool is manufactured principally in families. The cloth is more durable, but less fine and handsome, than that imported. The articles manufactured are cloths, hosiery, and blankets. The want of wool has been the principal obstacle to the extension of this manufacture. That will soon be removed. In consequence of the introduction of large numbers of merino sheep, the quality of the American wool is fast improving, and the number of sheep rapidly increasing.

Flax is manufactured to a considerable extent in families and in establishments.

About two thirds of the clothing, house and table linen, of the inhabitants of the United States, who do not live in cities, is probably the product of family manufactures; and the annual value of the cotton, woollen, and flax manufactures, domestic and public, exceeds 40 millions of dollars.

The *hand-cards* manufactured in 1809, were 240,000 pair, and the capital employed 200,000 dollars. In the same year 20,000 square feet of *cards for carding machines* were manufactured. The value of both kinds was 200,000 dollars. The wire for them is all imported. It amounts annually to 25 tons, worth 40,000 dollars.

Both articles are manufactured in sufficient quantities to supply the demand.

Hats are annually imported to the value of 350,000 dollars; and exported to the value of 100,000 dollars. The value of all the hats annually made is about 10 millions of dollars.

Paper is still imported in small quantities. *Printing* is carried on to an extent commensurate with the demand; as is also the manufacture of *printing types*, by large establishments at Philadelphia, New-York, Baltimore, and Boston. The manufactures of hanging paper and playing cards are extensive.

Sufficient *hemp* will be raised in a short time to supply the market. The manufactures of ropes, cables, cordage, duck and cotton bagging, are nearly adequate to the demand.

The quantity of *spiritous liquors* manufactured is 15 millions of gallons and of that imported 9,750,000 gallons, yielding a revenue of 2,865,000 dollars. The quantity of malt liquors imported, is 185,000 gallons, and of malt liquors and *cider* exported, 187,000 gallons. The value of spiritous and malt liquors manufactured is 10 millions of dollars.

Iron abounds in the United States. The quantity of *bar iron* annually consumed is estimated at 50,000 tons, of which 40,000 are manufactured here, and 10,000 imported. *Sheet, slit, and hoop iron* are imported to the amount of 565 tons, and manufactured to the amount of 7000 tons. *Cut nails* are manufactured to the value of 1,200,000 dollars; and 280 tons are exported. But 1500 tons of wrought nails are imported. A considerable quantity of *blistered*, and some *refined steel* are made here; but 11,000 cwt. are annually imported. Besides these, the principal articles manufactured out of iron, consist of agricultural implements, the usual work of blacksmiths, anchors, shovels, spades, axes, scythes, and various other edge tools, saws, bits, stirrups, and a great variety of the coarse articles of ironmongery; but cutlery, and all the finer species of hardware and steelwork are imported from Great-Britain. Balls, shells, and cannon are cast in several places; and 39,000 stands of arms are annually manufactured. The casting of cannon without a caliber, and boring them out of the solid mass of cast iron, for the reception of the ball, by water machinery, was first performed, in 1794—95, by a French artist, at the public expense, in the United States. The whole value of the articles made of iron is estimated at from 12 to 15 millions of dollars.

Copper and *brass* are manufactured into stills and other vessels; and, in small quantities, into buttons, and various brass wares. The zinc is chiefly, and the copper wholly, imported.

Lead is made into shot and colors of lead. Of the first 600 tons are manufactured yearly; and of the last, in Philadelphia alone, 560 tons. Red and white lead are imported to the amount of 1150 tons, and lead itself, and other manufactures, to the amount of 1225 tons.

Connecticut gluts the market with *tin ware*. The sheets are all imported.

Plated ware is made in Philadelphia to the value of 100,000 dollars. It is made also in Boston, New-York, Baltimore, and Charleston.

Only 200,000 lbs. of *gunpowder* are imported, and 100,000 lbs. exported. The manufacture may at any moment be made adequate to the consumption.

Coarse *earthen ware* is made in sufficient quantities. Four manufactures of a finer kind have been lately established. Of *window glass* 27,000 boxes are manufactured, and the same quantity imported. Glass bottles, decanters, and other wares, are made to a considerable extent.

Oil of vitriol is manufactured in Philadelphia to the amount of 200 000 lbs. The value of the exports of chemical preparations exceeds 30,000 dollars.

The quantity of *salt*, manufactured in the interior, exceeds 730,000 bushels. Upwards of 3 millions of bushels are imported. The manufacture on the New-England coast has been suspended; but an extensive establishment has lately been begun in North-Carolina.

The extensive coasts of the United States, which are as favourably situated, to say the least, for the manufacture of *salt*, as the coasts of France and Lisbon, whence our importations are now made, and the *salines* or salt springs, which are very numerous in the interior of the country, give promise of an abundant supply of this necessary of life. A particular account of the *salt-works* will be given under the heads of the several states in which they are established.

Straw bonnets and hats are manufactured, in a small district in Rhode-Island and Massachusetts, to the amount of 250,000 dollars. This manufacture has much increased.

Fishing tackle, and instruments of the fisheries are well manufactured in the United States, and to the extent that are wanted.

The various *labour saving machines* may be introduced under this head.

The *Saw Gin*, for cleaning cotton, stands deservedly at the head of these machines.* This patent machine was invented by Mr. Eli Whitney, a native of Massachusetts, about the year 1793. The value of this machine may be estimated from the following extract from Dr. Ramsay's history of South Carolina.

“Before its invention, very little upland cotton was cultivated, and scarcely a single pound was exported from the United States; afterwards, the culture of this species of cotton became the principal object of the planter in South Carolina and Georgia; and in the year 1807, more than *fifty-five millions of pounds* of upland cotton was exported, and which was valued at more than *eleven and a half millions of dollars*. It has rarely occurred, that the invention of a single machine has, at once, changed the employment of so many

* Of all the discoveries and inventions yet accomplished, the machinery which *saves labor* incidental to manufactures, in the greatest degree, is that of Mr. ELI WHITNEY, for ginning cotton wool. *Rees' Cyclopaedia*, art. U. S.

thousand people, and has added so much to the wealth and resources of a nation." In the year 1792, the value of the exports of the United States, was only 20,753,098 dollars, (upland cotton, the growth of the United States, constituted very little, if any part of these exports,) and in the short period of fifteen years, a new article of export is produced, amounting in value to more than one half of that sum.*

So numerous are the *labor saving machines*, introduced, or invented in this country, that it would be in vain to attempt even to name them all. They have been applied to breweries, distilleries and tanneries—to the manufacture of cards; of carded and combed wool, flax and hemp—of nails, screws, and buttons; have been used for splitting leather, which formerly was half wasted in parings;—for making dip tallow candles, and lint for medical purposes; for moulding paper, in the paper manufactories,—for facilitating printing, and even for teaching the grammar of our language. "The Americans were the first to bring *steam boats*, and their substitutes *team boats* into effective practical use in 1807. They were first proved in America to be practicable in 1786 to 1788, by Rumsey and Fitch. These steam boats are now used in great and *increasing* numbers on the Atlantic coasts, and western rivers and lakes. To these have been added the tremendous vessels of war, called the "*steam frigates*." "These *wonderful machines*, working as if they were animated beings, endowed with all the talents of their inventors, laboring with organs which never tire, and subject to no expense of food, bed, clothing, or dwelling, may be justly considered, as equivalent to an immense body of manufacturing recruits, suddenly enlisted in the service of the country."*

Commerce.] The trade of the United States is divided into foreign and domestic.

The great articles of exportation are fish, oil, whalebone, cotton, flour, wheat, tobacco, beef, pork, lumber, naval stores, fish, rice, Indian corn, pot and pearl ashes, shoes, candles, cut nails, ardent spirits, and refined sugars.

In the years 1810 and 1816, the articles of domestic growth exported were as follows:

	1810.	1816.
Produce of the sea	\$ 1,481,000	1,331 000
———— the forest	4,978,000	7,293 000
———— agriculture	33,502,000	53,354,000
Manufactures	2,174,000	1,755,000
Uncertain	231,000	
	<hr/> \$42,366,000	<hr/> 63,733,000

On an average of 8 years, from 1803 to 1811, the produce of agriculture constituted about three quarters, in value, of all the domestic exports of the U. States, the produce of the forest one ninth, of the sea one fifteenth, manufactures one twentieth.†

* Rees' Cyclop. Phila. edit. art. U. States.

† Pitkin's Stat. View

The destination of all the exports in 1810 was as follows :

1. *To Europe and the Mediterranean.*

Northern powers and Germany	\$22,010,000
France and Holland	120,000
Great Britain	12,520,000
Spain and Portugal, Madeira, Azores and Canaries	11,050,000
Italy, Trieste, Levant, and Barbary	2,200,000
	<hr/>
	\$47,900 000

2. *To all other countries.*

Florida (principally Amelia island)	\$2,500,000
British North-American colonies	1,470,000
Spanish America and Brazil	8,520,000
Other West-Indies	4,990,000
East of Cape of Good Hope	1,300,000
	<hr/>
	\$18,860,000

Domestic.] The exports in 1818, were to the following countries, viz.

	<i>Domestic.</i>	<i>Foreign.</i>
To the northern countries of Europe,	\$1,554,259	1,081,424
— the dominions of the Netherlands	4,192,766	3,022,711
of Great Britain	44,425,552	2,292,280
of France	10,666,798	3,283,791
of Spain	4,589,661	2,967,252
of Portugal	2,650,019	248,158
the Hanse Towns and ports of Germany	2,260,027	1,073,491
— all others	3,515,355	4,915,589
	<hr/>	<hr/>
	\$73,854,437	19,426,696

Amount of the exports, imports and tonnage of the United States.

Years	Exports.			Imports.	Tonnage.
	Domestic	Foreign	Total.		
	Produce. Dolls.	Produce. Dolls.	Dolls.	Dolls.	Tons.
1790	14,200,900	1,799,100	16,000,000		486,890
1791	14,600,000	3,799,202	18,399,202		502,698
1792	15,060,500	5,945,068	21,005,568		567,608
1793	15,420,900	10,590,888	26,011,788		627,570
1794	16,200,100	16,843,625	33,043,725		628,617
1795	18,064,050	29,791,506	47,855,556	69,756,258	747,964
1796	20,024,021	47,040,076	67,064,097	81,436,164	831,900
1797	24,052,671	27,242,039	51,294,710	75,379,406	876,912
1798	27,991,413	33,335,998	61,327,411	68,551,700	868,329
1799	33,142,187	45,523,335	78,665,522	71,069,148	920,000
1800	31,840,903	39,130,877	70,971,780	91,252,708	
1801	46,377,792	46,642,723	93,020,515	111,363,511	
1802	36,182,173	35,774,971	71,957,144		
1803	42,203,961	13,594,072	55,800,033		917,000
1804	41,467,477	36,231,597	77,699,074		
1805	42,387,002	53,179,029	95,566,021		
1806	41,253,727	60,283,236	101,536,963		
1807	48,699,592	59,643,558	108,343,150	138,574,876	
1808	9,433,546	12,997,414	22,430,960		
1809	31,405,702	20,797,531	52,203,233		
1810	42,366,675	24,391,295	66,757,970		*1,424,781
1811	45,294,043	16,022,790	61,316,813		
1812	30,032,109	8,495,127	38,527,236		
1813	25,008,152	2,847,845	27,855,997		
1814	6,782,272	145,169	6,927,441		
1815	45,979,403	6,583,350	52,557,753	133,000,000	
1816	64,781,896	17,138,555	81,920,452		1,372,218
1817	68,313,500	19,358,069	87,671,569		
1818	73,854,437	19,426,696	93,281,133		

In the two years ending June, 1802, the average value of the exports from Canton to the United States, was about \$3,000,000. and the number of otter and seal-skins, was 772,387, valued at 550 000. About one sixth of the exports from Canton to the United States, was paid for in otter and seal-skins.

The amount of registered tonnage employed in foreign trade, in 1815, was 854,294 ; and of tonnage employed in the coasting trade, enrolled 435,066, licensed 10,427.†

The number of American articles in the regular lists of the exports of the United States, is about 110, of which about 70 are manu-

* Of this number 910,059 were tons of vessels in the foreign trade: 405,162 of coasters; and 55,060 of fishing vessels. 3204 tons of the foreign trade belonged to the whale fishery; 495,203 tons belonged to Massachusetts, and 276,557 to New-York.

† Pitkin's Stat. View.

factures of the United States, subserving commerce, by affording new, various, and more convenient articles of exportation.

The *trade with the Indians* of the United States, was carried on by *licenses*, given to persons of good character, from 1775 to 1802, when a new law was passed, substituting fine, imprisonment, forfeiture, and bonds, without making a good character or citizenship requisite. Without superseding the plan of licenses, a system of trade by *public factors*, commenced in 1796. The President was authorized to establish trading houses, and to appoint an agent to each house to carry on, as the act states, "a liberal trade with the Indians." The act appropriated 150,000 dollars as the capital of this trade, and the additional sum of 8,000 dollars annually for the payment of agents and clerks; and directed the trade to be carried on, so as not to diminish the capital. It was limited to two years; but was by a subsequent act continued in force till 1806. A superintendent of Indians was then appointed, and the capital increased to 260,000 dollars, and 13,000 dollars was annually appropriated for the payment of superintendent, agents, and clerks. This act was limited to three years; but afterwards continued in force till 1811. The capital was then increased to 300,000 dollars, with an annual appropriation of 19,250 dollars for the payment of superintendent, agents, and clerks. It was limited to three years; but was extended by subsequent acts to the first of March next.

The capital at present is distributed among eight trading-houses, or factories, established at the following places: fort Mitchell, the Chickasaw bluffs; fort Confederation, on the Tombigbee; fort Osage, on the Missouri; Praire du Chien, on the Mississippi; Sulphur fork, on Red river; Green bay and Chicago.*

It appears to have been the aim of the government to conduct Indian trade with "prudence and humanity." It has been for obvious reasons a very difficult business to manage. If by the course pursued, wars have not been entirely prevented with the Indian tribes, yet they may have been fewer and rendered less sanguinary—and if the Indians have made less advances in civilization and moral and religious improvement, than was wished and hoped, they would probably, but for the course pursued, have made much less.

The vast region lying between the Mississippi and the Pacific ocean, is inhabited, (with the exception of some small sections,) by various Indian tribes. To establish a proper "control over these Indians, (says the secretary of war,†) and to give our trade with them its utmost extension are deemed objects of great national importance."

"It is believed that within our limits, along the range of the Rocky mountains, quite to the Mexican frontier, is the best region for fur and peltries on this continent. With proper efforts the whole of this valuable trade extending quite across to the great western ocean, would, in a few years, be exclusively in our possession. To produce these desirable results, foreign adventurers, whose influence

* Report of Secretary of War, Dec. 1818.

† See his Report of Dec. 1818.

must at all times be hostile to our interest, and dangerous to our peace, must be excluded. With this view, and to protect our own trade, means have been taken to extend our military posts on the Mississippi and Missouri. Whatever character our trade in that quarter may assume, the extension of our posts, as contemplated, will be indispensable to its enlarged and successful prosecution; but it is believed that with all of the advantages which they will afford, unless the trade be properly and efficiently organized, we shall not be able to compete, with entire success, with the British companies on the north, nor to acquire that decided control over the Indians, which is indispensable to its complete success."

To secure these objects he recommends to Congress "to vest the trade in a company with sufficient capital, to be divided into shares of 100 dollars each; to be limited to the term of 20 years; to pay an annual tax on its subscribed capital, for the privilege of exclusive trade, and to be subject, in like manner as private traders, to such rules and regulations as may be prescribed."

Fisheries.] The *products of the sea* are derived from the cod, whale, herring, shad, salmon and mackerel fisheries. The greatest quantity of fish exported from the United States in any one year, was in 1804, when 567,828 quintals of dried fish, 89,482 barrels, and 13,045 kegs. of pickled fish, were exported, and 53,000 tons of shipping employed in the fisheries, principally owned in the New-England states. In 1816, there were but 219,991 barrels of dried fish, and 38,228 bbls. and 6,983 kegs of pickled fish exported.

The whale fishery originated in Nantucket in 1690, and has gradually risen into great commercial importance. In 1807, 476,000 dollars worth of oil and bone, and 130,000 dollars value of spermaceti oil and candles were exported. In 1816, the value of the former was reduced to 116,000, and of the latter to 59,000 dollars. The total value of the products of the sea in 1816, was 1,331,000 dollars.

We close this article with the following article from the treaty with Great-Britain of 1818, relating to the *fisheries*.

"It is agreed between the high contracting parties, that the inhabitants of the said United States shall have forever, in common with the subjects of his Britannic Majesty, the liberty to take fish of every kind, on that part of the southern coast of Newfoundland, which extends from cape Ray to the Rameau islands, on the western and northern coast of Newfoundland, from the said cape Ray to the Quirpon islands, on the shores of the Magdalen islands, and also on the coasts, bays, harbors and creeks, from mount Joly, on the southern coast of Labrador, to and thro' the straits of Bellisle, and thence northwardly indefinitely along the coast, without prejudice, however, to any of the exclusive rights of the Hudson Bay Company: and that the American fishermen shall also have liberty, forever, to dry and cure fish in any of the unsettled bays, harbors, and creeks, of the southern part of the coast of Newfoundland, hereabove described, and of the coast of Labrador; but so soon as the same, or any portion thereof shall be settled, it shall not be lawful for the said fishermen to dry or cure fish at such portion so settled, without previous

agreement for such purpose, with the inhabitants, proprietors, or possessors of the ground. And the United States hereby renounce forever, any liberty heretofore enjoyed or claimed by the inhabitants thereof, to take, dry, or cure fish, on or within three marine miles of any of the coasts, bays, creeks or harbors of his Britannic Majesty's dominions in America, not included within the above mentioned limits: Provided, however, that the American fishermen shall be admitted to enter such bays or harbors for the purpose of shelter and of repairing damages therein, of purchasing wood, and of obtaining water, and for no other purpose whatever. But they shall be under such restrictions as may be necessary to prevent their taking, drying, or curing fish therein, or in any other manner whatever abusing the privileges hereby reserved to them."

Direct Taxes, and Valuation of the United States.] On the 14th of July, 1798, the first direct tax under the Constitution, (being two millions of dollars,) was laid upon the United States, on the dwelling houses, lands and slaves, and was apportioned among the several States, according to the principles of the Constitution, as follows, viz. :—

	Dolls. cts. m.		Dolls. cts. m.
New-Hampshire	77,705 36 2	Delaware	30,430 79 2
Massachusetts	260,435 31 2	Maryland	152,599 95 4
Rhode Island	37,502 8 0	Virginia	345,488 66 5
Connecticut	129,767 0 2	Kentucky	37,643 99 7
Vermont	46,864 18 7	North-Carolina	193,697 96 5
New-York	181,680 70 7	South-Carolina	112,997 73 9
New-Jersey	98,387 25 3	Georgia	38,814 87 5
Pennsylvania	237,177 72 7	Tennessee	18,806 38 3

The quantity of land valued in each State, and the amount of its valuation was as follows, viz. :—

	<i>No. Acres.</i>	<i>Valuation.</i>
New-Hampshire	3,749,001	\$19,028,108 3
Massachusetts	7,831,628	59,445,642 64
Rhode Island	565,844	8,082,355 21
Connecticut	2,649,149	40,163,955 34
Vermont	4,918,722	15,165,484 2
New-York	16,414,510	74,885,075 69
New-Jersey	2,788,282	27,287,981 89
Pennsylvania	11,959,865	72,824,852 60
Delaware	1,074,105	4,053,248 42
Maryland	5,444,272	21,634,004 57
Virginia	40,458,644	59,976,860 4
North-Carolina	20,956,467	27,909,479 70
South-Carolina	9,772,587	12,456,720 94
Georgia	13,534,159	10,263,506 95
Kentucky	17,674,634	20,268,325 7
Tennessee	3,951,357	5,840,662 0
	<hr/> 163,746,686	<hr/> \$479,293,263 13

A second direct tax was laid, August 2, 1813, its amount was \$3,000,000 and was apportioned among the States according to the Constitution, on the census of 1810, as follows :—

	<i>Dolls.</i>	<i>cts.</i>		<i>Dolls.</i>	<i>cts.</i>
New-Hampshire	96,793	37	Maryland	151,623	94
Massachusetts	316,270	98	Virginia	369,018	44
R. Island	34,750	78	Kentucky	168,928	76
Connecticut	118,167	71	Ohio	103,150	14
Vermont	98,343	71	N. Carolina	220,238	28
New-York	430,141	62	S. Carolina	151,905	48
New-Jersey	108,871	83	Georgia	94,936	49
Pennsylvania	365,479	16	Tennessee	110,086	55
Delaware	32,046	25	Louisiana	28,295	11

The value of *houses, lands, and slaves*, in each State, with the value of *houses and lands*, after deducting the estimated value of slaves, and the value of houses and lands, in 1799, and the increased value in each State, from 1799 to 1815, may be stated as follows, viz. :—*

* From Pitkin's Stat. View, &c.

STATES.	Valuation of houses, lands, and slaves, as revised and equalized by the principal assessors in 1814 and 1815.	Value of houses and lands, after deducting the estimated value of slaves in 1814 and 1815.	Value of houses and lands in 1799, omitting fractions.	Increase from 1799 to 1814 and 1815.	Value of lands per acre including the buildings thereon.
New-Hampshire	38,745,974	38,745,974	23,175,046	15,570,828	9
Massachusetts	143,765,560 20	143,765,560 80	83,992,468	59,773,092	18
Rhode Island	20,907,766	20,907,766	11,066,357	9,841,489	39
Connecticut	88,534,971 97	88,534,971 97	48,313,424	40,221,547	34
Vermont	32,461,120	32,461,120	16,723,873	15,737,247	6 40
New-York	273,120,900	269,370,900	100,380,706	168,990,194	16 50
New-Jersey	98,612,083	95,899,333	36,473,899	59,425,434	35
Pennsylvania	346,633,889	346,633,889	102,145,900	244,487,989	29
Delaware	14,493,620	13,449,370	6,234,413	7,204,967	13
Maryland	122,577,572 90	106,490,638	32,372,290	74,118,348	20
Virginia	263,737,699 27	165,608,199	71,225,127	94,383,072	4 15
N. Carolina	93,723,031	51,517,031	30,842,372	20,674,659	2 50
S. Carolina	123,416,512	74,325,262	17,465,012	56,868,250	8
Georgia	57,792,158	31,487,658	12,061,137	19,426,521	2 50
Kentucky	87,018,837	66,878,587	21,408,090	45,470,497	4
Tennessee	35,408,052	24,233,750	6,134,108	18,099,662	6
Ohio	61,347,215	61,347,215			
	81,902,296,961 34	1,631,657,224 17	619,977,247	950,293,806	

CHAPTER II.

NATURAL GEOGRAPHY.

FACE OF THE COUNTRY, SOIL AND AGRICULTURE, BAYS, SOUNDS, CAPEs, RIVERS, LAKES, MOUNTAINS, FORESTS, BOTANY, ZOOLOGY, MINERALOGY, MINERAL WATERS, NATURAL CURIOSITIES.

Face of the Country.] THE United States, considered as a country, may with more propriety be characterized as *uneven*, than as *level* or *hilly*. In so extensive a tract, however, no general language can adequately describe the real state of facts. This can only be learned from a more minute description. New England is generally hilly; Vermont is mountainous; Maine and the eastern coast of New-Hampshire and Massachusetts are only uneven. The middle states are principally uneven, except a broad tract running from N. W. to S. E. through the centre of this division, which is mountainous. In the southern states a broad belt of land from 100 to 250 miles wide, extending the whole length of the coast, is a uniform dead level. Back of this the land becomes uneven, and hilly, and finally rises into the Alleghany mountains which separate the waters of the Atlantic from those of the Ohio and Mississippi. Part of Kentucky and Tennessee are mountainous; while Georgia, Alabama, and Mississippi are level. The territory W. of the Mississippi, included in the boundaries of the U. States, corresponds, in its prominent features, to that on the E. It is divided from S. to N. by the chain of Rocky mountains, which divide the waters, that fall E. into the Mississippi and Gulf of Mexico, from those that flow W. into the Pacific ocean.

Soil and Agriculture.] About thirteen sixteenths of the surface of the country, E. of the Mississippi, or 520,000,000 acres, is covered with a strong, fertile soil, fitted with a moderate degree of cultivation, abundantly to repay the labors of the husbandman. Of the remaining three sixteenths, about 51,000,000 acres are covered with water; about 40,000,000 consist of a mountainous country; which is almost universally forested, and which, from the nature of its surface, rather than of its soil, is unfit for the purposes of cultivation; and about 29,000,000 acres are either sandy, or covered with so thin and poor a soil, as to offer slight encouragement, except to the most perfect agriculture. The acres of water in the United States, as they were bounded in 1783 were, according to Mr. Hutchins, distributed in the following manner:—

					<i>Acres.</i>
In the lakes	-	-	-	-	46,340,000
In the bays	-	-	-	-	2,660,000
In the rivers	-	-	-	-	2,000,000
					<hr/>
					51,000,000

The principal barren tract is the seaboard, from New-Jersey southward. Beside this, the greater part of the state of Rhode Island, and the south-eastern counties of Massachusetts, are sandy.

Of the 520 000,000 acres susceptible of advantageous cultivation, only 40,950,000 acres were estimated by Mr. Blodget to be under actual improvement, at the beginning of the year 1811. This estimate we believe to fall far short of the truth.

The land of New-England is principally devoted to the culture of Indian corn, grass, rye, oats, flax, wheat, buckwheat, barley and hemp; and a far greater proportion of New-England is under cultivation, than of either of the other great divisions. The improved land of the middle states is employed in the cultivation of wheat, Indian corn, grass, oats, buckwheat, flax, barley, potatoes, speltz, rye and tobacco. The agricultural productions of the southern states are cotton, wheat, tobacco, Indian corn, rice, indigo, (formerly) barley, and hemp. We have arranged these various articles, in the three great divisions of the country, according to the quantity raised in each, as far as we have been able to ascertain it. The staple of New-England, is Indian corn; that of the middle states, wheat, and tobacco; and that of the southern, cotton and rice.

Indian corn, which is also called *maize* is a native grain extremely valuable to this country. It grows readily in every part of the United States, demands little labor, and is almost sure to yield a harvest. The *meadows* of New-England, and the state of New-York, are all natural and perennial; as are most of those in Pennsylvania, and the north part of New-Jersey. The rich land in these districts, if neglected, becomes, of course, a meadow or a forest. In the states southward, on the Atlantic, there are few meadows, and those, except the interval lands on the banks of rivers, are all annual and artificial. The *rye* of the middle states is principally consumed in distilleries; the greater part of that raised in New-England is used for bread. Sufficient *barley* is raised to supply the various breweries, and the quantity is increasing. Little, if any, is used for bread. *Hemp* is becoming an object of very extensive cultivation, in several parts of the country, particularly in the western states. The *sugar cane* is successfully cultivated in the "delta of the Mississippi," and in other parts of Louisiana, and on the whole coasts of S. Carolina and Georgia. In Louisiana alone, were made in 1810, 9,671,500 lbs. of sugar, 170,000 gallons of molasses, and 239,130 gallons of distilled spirits from molasses here manufactured. In 1817, the quantity of sugar made in this district was increased to 20,000,000 lbs. The quantity of sugar lands is said to exceed present demands.*

Wines and other *fermented liquors*, as *beer*, *ale*, *cider*, and *perry*, can all be produced in our various climates and soils, of the best kind, and ultimately in quantities competent to our wants.

In 1810, there were 23 *glass manufactories*, returned, and the amount of articles made, was 1,046,004. Many new works have since been erected. The materials for fabricating this article lie every where on the surface of the earth. In consequence of the

* Rees' Cyclop. art. U. States.

migration from Europe to this country of numbers of the best workmen in glass, this manufacture in Boston and other places, has been brought to high perfection.

The fruits of the *fine arts, painting, architecture, and sculpture*, may properly be reckoned among the manufactures of the country, and of high value, for use, as well as ornament. In all these, as also in engraving, and the manufacture of books, and of instruments of machinery, great strides have been made, within a few years, toward that perfection of these arts, which has been attained in Europe.

The cultivation of the *olive tree*, and the *manufacture of olive oil, and of the soap of that oil*, appear to be worthy of the immediate and serious attention of the United States. The country and climate south of Virginia and Kentucky is suited to this culture.*

Bays.] The CHESAPEAKE is a very spacious bay, 200 miles in length, from Havre de Grace to the southern extremity, and from 7 to 18 miles in breadth; and covering, according to Mr. Hutchins, 2660 square miles, or 1,700,000 acres. It is generally as much as 9 fathoms deep, and affords many commodious harbors, and a safe and easy navigation. About 125 miles of the length of the bay lie within the state of Maryland, and the remaining 75 within the state of Virginia. The mouths of James, York, and Potowmac rivers are merely arms of the Chesapeake. This is true of the latter river for at least 50 miles from its mouth. This bay receives the waters of the Susquehannah, Potowmac, Rappahannock, York, and James rivers, besides numberless small streams, both from the eastern and western shores. It opens, from the west, into the Atlantic, by a mouth 12 miles wide, between cape Charles and cape Henry; the former in $37^{\circ} 12'$, the latter in 37° N. both in Virginia.

DELAWARE BAY separates New-Jersey from Delaware. It is 65 miles long from Fisher's Point to cape Henlopen; and, in the broadest part, 30 miles wide; containing, according to Hutchins, about 985 square miles, or 630,000 acres. It receives the waters of no large river except the Delaware. It opens, from the N. W. into the Atlantic, between cape May, in New-Jersey, in lat. $38^{\circ} 56'$, and cape Henlopen, in Delaware, in lat. $38^{\circ} 47'$, by a mouth 20 miles broad.

MASSACHUSETTS BAY is a part of the ocean putting up between cape Anne and cape Cod. Its length is about 60 miles, and the distance of the two capes 45. It stretches from N. W. to S. E. The south eastern part is called Barnstable bay.

NARRAGANSETT BAY, in Rhode-Island, is 35 miles long. The first 20 miles of it is a regular parallelogram, 13 miles wide. The remaining 15 will average about 2 miles wide. It covers an area of about 290 square miles, or 185,600 acres. It communicates with the ocean between point Judith, on the west, and point Seaconet, on the east. Its bearing is from N. to S.

Sounds.] LONG ISLAND SOUND, between Connecticut and New-York on the north, and Long Island on the south, is 140 miles long,

* Rees' Cyclop.

and from 3 to 25 broad. It has two communications with the ocean. The eastern is broad and unobstructed. At the west end by a narrow strait, 1 mile wide, opposite New-York, it communicates with York bay, and through that with the ocean, at Sandy Hook. The celebrated strait called *Hell Gate* is near the west end of the sound, about 8 miles east of New-York, and is remarkable for its whirlpools, which make a tremendous roaring at certain times of tide. These whirlpools are occasioned by the narrowness and crookedness of the pass, and by a bed of rocks, which extend across it. A skilful pilot may with safety conduct a ship of any burden through this strait with the tide, or, at still water, with a fair wind. The sound affords a very safe and convenient inland navigation.

PAMLICO SOUND lies between the eastern shore of North-Carolina, and a chain of sand islands, which stretch along the shore of that state through half its extent. The southern part of this body of water is commonly designated by this name; but there is evidently nothing which intervenes to separate it from the northern part. Taken in its whole extent, from its northern extremity in Princess Anne county in Virginia, to cape Lookout, it is not less than 200 miles long. Its breadth varies from 3 to 20 miles. The chain of islands, which separate it from the main ocean, is scarcely a mile wide, and is generally covered with small trees and bushes. There are five of these islands, and a peninsula, separated from each other by five inlets, Currituc, Roanoke, Gant, Ocrecoc, and Cedar; but Ocrecoc is the only one that will admit vessels of burden. There is here 14 feet water at low tide. Six miles within this inlet there is a hard sand shoal, called the *Swash*, lying across the channel. On this there is only 9 feet water at full tide. Ships drawing 10 feet water find good anchorage between the inlet and the sound. There are bars at the mouths of all these inlets, which are perpetually shifting their places. Pamlico sound receives the waters of Chowan, Roanoke, Pamlico, and Neus rivers.

ALBERMARLE SOUND puts up from Pamlico, into North-Carolina, a distance of 60 miles. It is from 8 to 12 miles broad. It is really a bay, having only one communication with the ocean. It is the estuary of the rivers Roanoke and Chowan.

Capes.] The most noted capes in the United States are cape Anne, cape Cod, cape Malabar, Montauk Point, Sandy Hook, cape May, cape Henlopen, cape Charles, cape Henry, cape Hatteras, cape Lookout, and cape Fear.

Rivers.] The northern and western frontiers, the St. Lawrence, and the Mississippi, have already been described.

The largest river *within* the United States is the Ohio. It first receives this name at Pittsburg, at the junction of the Allegany and Monongahela. The Allegany has two branches, the eastern and western. The largest, the eastern, called the Allegany, heads in the Allegany mountains in Pennsylvania, near the sources of the Genessee and Tyoga. It crosses the New-York line, runs 50 miles in that state, and in 20 miles, receives, from the northwest, the Connewango river, which rises in Chataughque lake near lake Erie. Then recrossing it, it pursues a south-westerly course to Franklin where it

receives French Creek, or the western branch, which rises near lake Erie, is 100 miles in length, and navigable almost to its source. The course of the Allegany thence to Pittsburg is very winding, but on the whole nearly south, the distance 130 miles, and its whole length not less than 400 miles. The Allegany is boatable for a distance of 200 miles from Pittsburg. The Connewango is boatable about 70 miles to the head of Chataughque lake.* The Monongahela rises in Virginia, west of the Laurel range, near the head waters of the Potowmac and the Greenbriar. After running a winding, northerly course about 60 miles, it enters Tygart's valley, where it begins to be navigable for light boats, and is 20 yards wide. At the western fork, 65 miles farther, its width is 200 yards; at the mouth of Cheat river, 40 miles farther, it is 300 yards. It continues of this width 50 miles farther, to the mouth of the Ychiogany, which unites with the Monongahela only 15 miles from its mouth, where the latter river is 400 yards wide. The whole length of the Monongahela is about 300 miles. It is not very well fitted for boat navigation, and is a smaller stream than the Allegany. They unite as has been already mentioned at Pittsburg, and form the Ohio. The Ohio is a most beautiful river. Its current is gentle; its waters are clear; and its surface, with scarcely an exception, unbroken by rocks or rapids. Its width at Pittsburg is 440 yards; at the mouth of the Great Kanhawa 500; at Louisville, where it is broader than at any other place, 1200; and at its mouth 900. Its average width through the whole course is about 600 yards. Its length, as measured according to its various meanders, is as follows;

	miles.	whole distance.
From Pittsburg to Pennsylvania line	42	42
Marietta - - -	128	170
Hockhocking - - -	28	198
Great Kanhawa - - -	72	270
Sciota - - -	101	371
Cincinnati - - -	113	484
Great Miami - - -	24	508
Kentucky river - - -	56	564
Louisville and falls - - -	68	632
Green river - - -	187	819
Wabash river - - -	68	887
Cumberland river - - -	177	964
Tennessee river - - -	12	976
Mouth of Ohio - - -	57	1033†

It affords, in the spring, 30 or 40 feet water to Louisville 401 miles from its mouth; 25 or 30 to La Tarte's rapids, 792 miles from its mouth; and a sufficiency at all times for boats to Pittsburg. The only serious obstruction in the river is the rapids at Louisville, in lat. 38° 8'. The river here descends 10 feet in a mile and a half. In the high spring floods large vessels pass down these rapids with

* Boats go from the head of Chataughque to New-Orleans, a distance of 2430 miles. *Schultz.*

† These distances are taken from Schultz's Travels.

safety ; but they present an insuperable obstacle to the return of such vessels, after they have once gone down. The whole descent at the rapids, in the summer is 22 feet. Of the proposed canal at this place we have already given an account.

The ILLINOIS is considerably longer and larger than the Wabash. It rises in the N. E. part of Indiana territory S. E. of lake Michigan. Thence it pursues a winding course, and passes near the Chicago, which falls into the S. W. end of that lake. Between these rivers are two portages, the longest of which does not exceed 4 miles. It flows through a very pleasant, fertile country. It falls into the Mississippi, 20 miles above the junction of that river with the Missouri, and 204 miles above the Ohio.* Its current throughout is gentle, and it is navigable 450 miles. It is 400 yards wide at its mouth.†

The great branches of the Ohio are the Wabash, the Cumberland and Tennessee.

The TENNESSEE is formed by the confluence of two branches, the northern and southern. The northern rises in the western mountains of Virginia, in lat. 37°. It is called the Holston. It runs about 340 miles before the confluence, and is navigable for boats 240, to Long Island. The southern branch, called the Tennessee, rises in the northern mountains of Georgia, and after running about the same distance, unites with the Holston 30 miles below Knoxville. The united stream pursues a west course of 40 miles, and receives the Clinch from the north ; then turning south-west, in 60 miles it receives the Hiwassee from the south, 66 miles above the Suck or Whirl, where the river breaks through the Cumberland mountain. At this place the river, which a few miles above is half a mile wide, is suddenly compressed to the width of about 70 yards. Just as it enters the mountain a large rock projects from the northern shore in an oblique direction, which renders the bed of the river still narrower, and causes a sudden bend ; the water of the river is of course thrown with great rapidity against the southern shore, whence it rebounds round the point of the rock, and produces the whirl, which is about 80 yards in circumference. Boats pass the whirl without danger or difficulty, and boats ascending the river are easily towed up by the bank. The river from this place to the Muscle Shoals, a distance of 250 miles, is uniformly smooth and unobstructed. These are 20 miles in length. The bed of the river, in this distance, consists of broken stones, capable of being easily removed, and the navigation is susceptible of great improvement. The river here spreads to the width of three miles, forms a great number of islands, and is of difficult passage, when the waters are low. Hence to the mouth, a distance of 250 miles, the river is navigable throughout the year. The Tennessee unites with the Ohio 57 miles from its mouth. Its whole length is 1026 miles. It was called by the French the *Cherokee* ; and the whole river was formerly called by the Americans the *Holston*.

CUMBERLAND river, formerly called the *Shawancee*, and by the French the *Shavanon*, rises in the Cumberland mountains in the

* Schultz, II. 89, 42.

† Idem, 42.

S. E. part of Kentucky. From its source to the falls is about 100 miles; and to this place it is navigable for boats. After running 100 miles farther it enters the state of Tennessee and pursues a S. W. course to Nashville 200 miles. There turning to the N. W. it runs 200 miles farther, and enters the Ohio, 12 miles above the Tennessee. It is 300 yards wide at the mouth. It is navigable for large vessels to Obed's river, 90 miles above Nashville. Its whole length is about 600 miles.

The **WABASH**, a northern branch of the Ohio, is a beautiful river with high and fertile banks. Its whole length is from 650 to 700 miles. It is navigable at all seasons for boats drawing 5 feet water 412 miles, to Ouiatanon, a small French settlement on the west side of the river, and for large canoes 197 miles farther, to the Miami carrying place, 9 miles from the Miami village. This village stands on the *Miami of the Lakes*, which empties into the west end of lake Erie. The communication between Detroit and the Illinois and Ohio countries, is up Miami river, across the carrying place 9 miles, when the rivers are high, and from 18 to 30, when they are low, and down the Wabash to the Ohio. The mouth of the Wabash is 270 yards wide, and is 146 miles above the mouth of the Ohio.

The large Atlantic rivers will be described in their geographical order.

The **CONNECTICUT** is the great river of New-England. Its principal branch rises in New-Hampshire, runs north across the boundary of Canada, and, making a large semicircular bend, turns southward. About 14 miles north of the 45th degree, it is joined by the western branch called Indian river. The course of the Connecticut is on the whole west of south. After crossing the line, it divides the states of Vermont and New-Hampshire, and passes through those of Massachusetts and Connecticut. Its whole length is 410 miles. There are 6 falls in this river, viz. the Fifteen Mile falls between Littleton and Dalton, in lat. $44^{\circ} 25'$; the falls at Hanover; Bellow's falls at Walpole 44 feet; Miller's falls at Montague, 66 feet; the falls at South Hadley, about 70 feet, and the falls at Enfield. The river is navigable for vessels drawing 10 feet water 36 miles to Middletown; and for small sloops, 50 miles to Hartford. By means of canals it has been rendered passable for boats to Barnet, at the foot of the Fifteen Mile falls, about 250 miles above Hartford, following the windings of the river. Probably no river of the same extent has more interval land than the Connecticut; and we believe that none of the Atlantic rivers in the United States, except the Hudson, Susquehannah, and the Potowmac, empty more water into the ocean.

The **HUDSON** is principally a long, narrow arm of the sea. It rises in the northern part of New-York, between lake Champlain and the St. Lawrence. It is a remarkably straight river, and its course is from N. to S. Its length is 250 miles. It is navigable for ships, 130 miles, to Hudson; and for sloops of 30 tons, 30 miles further, to Albany. The tide in this river flows more than 160 miles. There are two falls between Albany and fort Edward. They are the only obstructions to the passage of boats for the dis-

tance of 50 miles. About 30 miles from the ocean the river divides, and embosoms the island of Manhattan, on which stands the city of New-York.

The **DELAWARE** rises in the state of New-York, near the head waters of the Susquehannah, and of the Schoharie, a branch of the Mohawk. It empties, through Delaware bay, into the ocean; and may be considered as terminating about 5 miles below Newcastle, in Delaware, or 40 miles below Philadelphia. To this last city it is navigable for a 74 gun ship, for sloops 35 miles further to Trenton falls, for boats of 8 or 9 tons, 100 miles further. The whole length of the Delaware, from its source to the bay, is about 300 miles; and the distance thence to the ocean is 65. The tide rises to the foot of Trenton falls.

The **SUSQUEHANNAH** rises in lakes Otsego and Otego, in New-York, about 20 miles from the Mohawk. It crosses the Pennsylvania line three times, and is crooked in every part of its course. Bateaux ascend the Susquehannah to the lakes in which it rises. The river has no where any perpendicular or impassable falls, and between the New-York line and the Conewago falls, there are few obstructions from rapids, to the navigation of boats. Around these falls a canal has been dug one mile in length. At Columbia, 20 miles lower down, commences a series of rapids, which continues, with occasional interruptions, 50 miles, to the head of tide-water, 10 miles below the Maryland line. The whole descent, in that distance, is estimated at 140 feet; and the navigation at all times dangerous, is practicable only during the high freshets. Few boats ever attempt to ascend. The Susquehannah empties into the Chesapeake at Havre de Grace. The distance from its source to its mouth is about 400 miles, and from its mouth, across Chesapeake bay, to the ocean, 200. The Susquehannah empties more water into the ocean, than any of the Atlantic rivers within the United States.

The **POTOMAC**, from its source, is the boundary between Maryland and Virginia. It rises near the head waters of the Monongahela, and, as we have already mentioned, is connected with it by a public road, 72 miles in length, leading from Cumberland on the Potomac, across the Allegany mountains, and the river Yohiogany, to Brownsville, at the confluence of the Cheat with the Monongahela. Cumberland lies on the great northern head of the Potomac, only 4 or 5 miles from the Pennsylvania line. The course of the river, from its source to this place, is N. E. and its length about 140 miles. Its course thence is S. E. Cumberland is 188 miles above tide-water, and 191 above the city of Washington. In this distance there are 5 falls; 1st. Little falls, of 37 feet, 6 miles above Washington; 2d. Great falls, of 76 feet, 9 miles higher; 3d. Seneca falls, 6 miles above, a rapid descending about 10 feet; 4th. Shenandoah falls, 60 miles higher, of 15 feet in height; 5th. Hoare's falls, 5 miles above the Shenandoah. Canals have been dug round all these falls, and the navigation of the river so far improved, as to render it passable for boats to Cumberland, through the greater part of the year. The distance of Washington from the

mouth of the Potowmac, in the Chesapeake, is 300 miles. Its soundings are 7 fathoms at the mouth, 5 at St. George's island, 4 and a half at Lower Matchodic, 3 thence to Alexandria, and 10 feet thence to the Little falls. Its width at the mouth is 7 and a half miles, and 1 and a quarter at Alexandria.

JAMES river, in Virginia, rises at no great distance from the head waters of the Potowmac, the Monongahela, and the Greenbriar, a branch of the Great Kanhawa. For about 80 miles it runs S. W. parallel with the Allegany range. It then turns and pursues a course a little S. of E. till it falls into the southern extremity of Chesapeake bay. This is the second of the Atlantic rivers, and naturally the most navigable of all. A 40 gun ship can go up to Jamestown; vessels of 250 tons to Warwick; and those of 125 tons to Rockets, a mile below Richmond. Thence there is 7 feet water to the town. About the centre of the town terminate the Great falls, which, in 7 miles, descend 43 feet. The canal around them has been described. The company by charter is bound to render the river navigable for boats drawing 12 inches water from Pattonborough to Richmond, a distance of 227 miles. This obligation has, to a considerable extent, if not wholly, been complied with.

The ROANOKE is formed by two branches, the Staunton and the Dan. Both rise in the Allegany range, the former in Virginia, the latter in North-Carolina, a small distance from the Virginia line. They unite a few miles from that line in Virginia, and forming the Roanoke pursue a south-easterly course to Albemarle sound. It is navigable only for shallops, and for these not more than 60 or 70 miles, on account of the falls in the back country.

The sources of the PEDEE are in the Allegany range, at no great distance from those of the Kanhawa and Tennessee. Its course is S. E. It is called the *Yadkin* from its source to the mouth of the Uwharre, a few miles below the Narrows; and the *Pedee* thence to the ocean. It is navigable for sloops of 70 tons, about 130 miles, to Greenville, and for smaller boats to Chatham, 20 miles higher. Boats cannot ascend above this place, although in the spring they come down from the *Narrows*, about 80 miles above Chatham, and 75 above the boundary line. The obstructions above Chatham, it is supposed, may be easily removed. At the Narrows the rapidity of the current, and the large rocks render it impossible to pass either way with a loaded boat. Here the boats from above are unfreighted, and the lading carried round the Narrows, in waggons, the distance of 7 or 8 miles. Above the Narrows the river has been rendered passable for boats 126 miles.

The SANTEE is larger and longer than the Pedee. Their sources are in the same range, at a small distance apart. It is called the *Catawba* in North-Carolina, and the *Santee* in South-Carolina. It is navigable for sloops of 70 tons to Camden, 140 miles. There are several falls above Camden, none of them very high, for the river is occasionally navigable for boats from Morgantown in North-Carolina. The Santee runs about 240 miles in South-Carolina. It empties into Winyaw bay 12 miles below Georgetown. Its course is S. E. It is connected by a canal with Cooper river, which emp-

ties into Charleston harbor. A steam-boat passes on this river to Columbia.

The SAVANNAH is somewhat longer than the Santee. It is formed by the confluence of the Keowee and the Tugulo, both of which rise in the Allegany range, near the North-Carolina line. The course of the Savannah is S. E. It is navigable for large vessels to Savannah, 17 miles from the ocean, and for boats of 100 feet keel to Augusta, which, by water is 340 miles above Savannah, (127 by land.) Just above Augusta there are falls in the river. Boats of 30 tons pass without difficulty from the upper end of these falls to Vienna, which lies opposite the mouth of Broad river, a distance of 60 miles; and it is said that, at a small expense, the river may be rendered navigable from Vienna to Andersonville, at the junction of the Keowee and the Tugulo, a distance of 60 miles more. The whole length of the Savannah is probably from 450 to 470 miles.

The ALATAMAHA rises near the Savannah, in the same range of mountains. It is formed by the waters of the Okmulgee and the Oconee. The Okmulgee, the principal stream, pursues a winding course of 250 miles among the mountains, and of 150 in the plain country, before it receives the Oconee from the east, which heads in the lower ridge of mountains. The Alatomaha, after the confluence, pursues a course of 100 miles to the ocean, which it enters by two channels, 60 miles S. W. of the Savannah. The whole length of the Alatomaha is about 500 miles.

These are all the large rivers of the U. States, which fall directly into the Atlantic. There are two others, the Apalachicola, and the Mobile, which enter into the gulf of Mexico.

The APALACHICOLA rises in the northern part of Georgia. For a considerable part of its course, it serves as a boundary between Georgia and Alabama; afterwards, for a small distance, between Georgia and West Florida; and, south of Flint river, between West Florida and East Florida. This river is longer than the Alatomaha. It is navigable for boats and galleys some distance higher than lat. 31° N. Little, however, is known respecting it.

The smaller rivers will be described in our account of the separate states.

Lakes.] In our account of America we described the lake of the Woods, Rainy lake, lakes Superior, Michigan, Huron, St. Clair, Erie, and Ontario. All these, except Michigan, are half in Upper Canada, and half in the United States. Michigan lies wholly within the United States.

Lake CHAMPLAIN lies between the states of Vermont and New-York. From Skeensborough, at the southern extremity, to lat. 45° it is 100 miles long. Its breadth varies from 1 to 25 miles. In lat. 45° it narrows to a river, called the Sorelle, which after a course of 100 miles falls into the St. Lawrence between Montreal and Quebec.

The small lakes will be described hereafter.

Swamps.] These are not very numerous, and are principally found in the southern states.

OKEFONOKE. This is in the southeast extremity of Georgia, and will be noticed in our description of that state.

DISMAL. This is a large swamp in the eastern part of Virginia and North-Carolina. It occupies a surface of about 150,000 acres, generally covered with trees; in most parts with juniper and cypress; and in those that are drier with white and red oak, and several species of pines. These forests abound with bears, wolves, and deer; and unlike most of the southern forests, are filled with underbrush. The Chesapeake and Albemarle canal passes through it; and is fed by a lake in the swamp, called lake Drummond, which is 15 miles in circumference, and 6 feet higher than the water of the canal. The southern part of the swamp proves to be excellent rice land; and is, at the same time said to be healthy.

ALLIGATOR. This, also, is in the eastern part of North-Carolina, in Currituc county, south of Albemarle sound. Near its centre is a large lake; the waters of which are conducted by an artificial canal to the Skuppernong. The object of this canal was to drain the swamp, and a large number of acres round the lake have thus been converted into an excellent rice plantation. This swamp is very large; but we are unable to form any exact estimate of its extent.

Mountains.] The principal chain of mountains in the United States is the **APALACHIAN**. It consists of two principal ranges, and its whole breadth may be estimated at 110 miles.

The western or **Alleghany** range preserves a distance of from 250 to 300 miles from the coast. Its southern extremity is near the great bend of the Tennessee, where it is called the Cumberland mountains. It pursues a northeasterly course through Virginia, and a part of Pennsylvania, to the sources of the Susquehannah, where it assumes a more easterly direction, till it terminates under the name of the Catskill mountain, within 5 miles of the Hudson. The Catskill mountain is the highest in the range, and is the only high mountain in it north of Virginia. The range in Virginia and Tennessee is considerably elevated. Cumberland, Kanhawa, Greenbriar, Monongahela, and Yohiogany rivers flow from it westwardly, and the James, Potowmac, Susquehannah, and Delaware eastwardly.

The eastern or **Blue ridge** is narrower than the western, and parallel with it. Its northern extremity is the highlands at West Point. In its southwest course it traverses under various names, New-York, New-Jersey, Pennsylvania, Maryland, and Virginia. On the borders of North-Carolina it is joined by a spur from the western range, and thence to its southern extremity, 60 miles south of the northern line of Georgia, becomes the principal or dividing mountain, discharging eastwardly the rivers Roanoke, Pedee, Santee, Savannah, and Alatamaha into the Atlantic; southwardly the Alabama and Mobile into the gulf of Mexico; and westwardly the Tennessee into the Ohio. The Blue ridge is pierced by all the great rivers north of the southern line of Virginia.

Between these two ranges lies the fertile limestone valley, which, although occasionally interrupted by transversal ridges, and in one place by the dividing or Alleghany ridge, may yet be traced from Newburgh and Esopus on the Hudson, to Knoxville on the Tennessee.

In Virginia, east of the Blue ridge and parallel with it, is a low range called the South mountains ; and west of the Allegany range is another, called the Laurel mountains. These are short compared with the other, and of so moderate a height, that they only serve to break the descent from the two principal ranges, to the country below them.

The mountains of New-England are either long ranges, or separate summits. The western or TAGHCONNOC range, begins at Ridgefield, in the county of Fairfield, in Connecticut, 12 miles from Long Island sound, and passing through the counties of Litchfield and Berkshire, may be said to unite with the Green mountains at Williamstown, in Massachusetts, being there separated only by the narrow valley of Hoosac river. The highest summit in this range is Taghconnuc mountain, in Egremont, in the southwest corner of Massachusetts. It is probably upwards of 3000 feet high.

The GREEN mountain range begins at New-Haven, two miles from the sound, in a noble bluff called *West Rock*, and extends thence to the Canada line ; sloping, however, with a gradual declension in the northern parts of Vermont, and in Canada becoming merely a collection of small hills. The two highest summits of this range are the Camel's Rump, and the mountain of Mansfield, both in the county of Chittenden, in Vermont, and both probably upwards of 5000 feet high.

The MOUNT TOM range commences also at New-Haven, at another precipice called *East Rock*, two miles from the sound ; and passing through the counties of New-Haven, Hartford, Hamden, Hampshire, and Franklin, extends into Canada through the whole length of the state of New Hampshire. Connecticut river breaks through this range below Northampton, in Massachusetts. The Blue hills in Southington, Connecticut ; Mount Tom and Mount Holyoke in the vicinity of Northampton and Hadley ; and Mount Toby in Sunderland, are the principal summits.

The LYME range begins at Lyme near the mouth of Connecticut river, and unites with the Mount Tom range after it has crossed that river in the county of Hampshire. It has no remarkable summits, and never rises to any considerable height.

The WHITE mountains in New-Hampshire are a round clump with numerous summits loosely connected with the Mount Tom range, which passes somewhat west of them. *Mount Washington*, the highest of these summits is said to be more than 11,000 feet above the level of the ocean, and far higher than any other land in the U. States. It is covered a great part of the year with snow, and in this situation is seen 90 miles at sea, and 160 from its base. The *Pondicherry* mountains, a short but lofty spur from the White mountains on the northwest, and may be considered as connecting them with the Mount Tom range. Mosehillock or Mooseheelock are short ranges, in New-Hampshire of very considerable height. The summit called Meosehillock is probably upwards of 5000 feet high.

Of single eminences *Saddle* mountain, in the towns of Adams and Williamstown, in Massachusetts, is about 4000 feet high. *Watchusett* in Princeton, in the county of Worcester, is 2989 feet in height. *Ascutney* is a noble mountain in Windsor, Vermont. *Monadnoc* is a very lofty conical mountain in Jaffrey, New-Hampshire. *Grand Monadnoc* is a still higher eminence, in Vermont, near the Canada line. The Connecticut valley lies between the Lyme and Mount Tom ranges from the sound to the passage of Connecticut river through the latter, north of which place the Mount Tom range bounds it on the east, and the Green mountains on the west, as far north as the Canada line. The Housatonnuc valley lies between the Taghconnuc and Green mountain ranges.

There is a characteristic difference between the mountains of New-England, and the Apalachian ranges. The former run parallel with the great rivers of the country and perpendicularly to the coast. The latter run parallel with the coast and transversely to the courses of the rivers.

Forests. Hardly a spot could have been found in the United States, which was not covered with forest trees, when they were first settled. And those parts of the country which are not yet cleared and cultivated, which are probably three fourths of the whole, still retain their natural covering. Forests far more extensive than any of the celebrated forests of Europe are found in every part of the country. None of them, however, have received a name.

Botany. Much less is known of the natural history of the United States, than of that of most European countries, and than might fairly be demanded of our countrymen. The productions of the southern states and of Canada, have not been well described by any one author, in a work professedly for that purpose; but are mostly intermixed with the productions of other parts of the world, in the large works of European botanists. This renders it difficult to select them, and to give an accurate connected account of them. To remedy this inconvenience, and to rescue this country from the reproach of not having any authentic and scientific account of its natural history, Dr. Cutler, who has already examined nearly all the vegetables of New-England, has for some time contemplated the publication of a botanical work of considerable magnitude, confined principally to the productions of the New-England states. Dr. Barton, of Philadelphia, has been collecting materials for a work of a similar nature, to comprehend the middle and southern states; when finished, both together will form a complete natural history of the American states.

The following catalogues, furnished by Dr. Cutler, are all incomplete, and designed only to give general information concerning the natural history of New-England.

Grain, cultivated in the Eastern and Middle States. Indian corn, several species, a native grain of N America. The varieties of this grain, occasioned by difference in soil, cultivation, and climate are almost endless. Winter and summer rye. The winter rye succeeds best in ground newly cleared; but summer rye is fre-

quently sown in old towns, where the land has been long under cultivation. The winter and summer rye are the same species, forming two varieties; but the winter and summer wheat are two distinct species. Several species of barley are cultivated, the most common is the six ranked and the two ranked. The wheat principally cultivated are the winter and summer oats and buckwheat.

In the southern states, as far north as Virginia, where the lands are suitable, besides the grain already mentioned they cultivate rice. This grain was brought into Carolina first by Sir Nathaniel Johnson, in 1688; and afterwards more and of a different kind, probably what botanists call a *variety*, was imported by a ship from Madagascar in 1696; till which time it was not much cultivated. It succeeds well also on the Ohio river, where it is planted both on the high and low grounds, and in the same fields with Indian corn and other grain. It has yielded at the rate of 80 bushels an acre. At Marietta, it has answered the most sanguine expectations of the inhabitants, producing equal to any other grain, without being at any time overflowed with water. It was not of the same species of the Carolina rice. It is probably the wild rice, which grows in plenty, in some of the interior parts of N. America, and is the most valuable of all the spontaneous productions of the country. In Pennsylvania there grows a sort of grain, called by the Germans, *Spelts*, which resembles wheat; and is a very valuable grain.

Cultivated Grasses in the Eastern and Middle States.] Most of the grasses in the middle and New-England states, are indigenous. It is not improbable that some of them may be naturalized exotics. The following are the principal grasses sown in the cultivated ground, or in any way propagated for feed and hay.

Herds grass or fox tail, which is reckoned the best grass, is a native, and supposed to be peculiar to this country. Blue grass. Many species of bent, particularly the Rhode-Island bent. The small and great English grass, wire grass, fowl meadow grass,* red and white clover.

The grasses of Virginia, according to Mr. Jefferson, are Lucerne, St. Foin, burnet, timothy, ray and orchard grass, red, white and yellow clover; greensward, blue grass and crab grass. South of Virginia very little attention is paid to the cultivation of grasses.

The winters are so mild, that the cattle find a tolerable supply of food in the woods.

Native Grasses in New-England. Besides the cultivated grasses, already mentioned, New-England has a great variety which are found growing in their native soils and situations, many of which have not been described by any botanical writers. The small experiments which have been made, sufficiently evince that several of them make excellent hay. They might be greatly improved by cultivation, and are highly worthy the attention of the farmers. Those which are found most common are the following, viz. The vernal

* "The fowl meadows, on Neponset river, between Dedham and Stoughton, are considered by some a curiosity. A large tract of land is there cleared and sowed with an excellent kind of grass, without the assistance of man." *Dr. Fisher.*

grass. Timothy, or bulbus cat's tail grass. Several species of panic grass. Several species of bent. Hair grass. Numerous species of foa. Quaking grass, several species. Cock's foot grass. Millet. Fesque grass, many species. Oat grass. Reed grass, several species. Brome grass. Lime grass. Barley grass. Dog's or couch grass. Many species of rush grass. Numerous species of *carex*, in fresh and salt marshy ground. Several species of beard grass. Soft grass. Besides these there are many valuable grasses which, at present, are nondescripts.

Wild Fruits in New-England. Black currant, gooseberry, prickly gooseberry. Two species of grapes—the black grape and fox grape. Of these two species we have many *varieties*, differing only in size, color, and taste. An excellent wine, and in large quantities, has lately been made by the French people at their new settlement, on the Ohio river, from the native grapes, without any kind of cultivation. They collected the grapes promiscuously from all the varieties growing in that country. By separating them, wines of a different, and no doubt some of them of a much better quality, might have been made. The native grape is propagated with great ease; its growth is luxuriant, overspreading the highest trees in the forests, and, by proper attention to the cultivation of the wine grape, would afford an ample supply of wines in the northern as well as southern states. The principal difficulty seems to be a want of a proper knowledge of the process in making wine, and preparing it for use. Barberry bush, whortleberry, blueberry, white whortleberry, Indian gooseberry, long leaved whortleberry, cranberry, red and yellow plum, beach plum, large black cherry, purple cherry, wild red cherry, dwarf or choke cherry, mountain cherry, service tree, brambleberry, sowteat blackberry or bumblekites, briar blackberry, dewberry, common raspberry, smooth stalked raspberry, white raspberry, superb raspberry, mulberry, strawberry. The native strawberry is much improved by cultivation, and produces a larger and better flavoured fruit than the exotic.

For information on this article respecting the southern states, the reader may consult what Catesby, Clayton, Jefferson, and Bartram have written upon it.

Nut Fruit. White oak, red oak, and several other species with smaller fruit. Black walnut, white walnut, butternut, or oilnut, white, or round nut hickory, shagbark hickory,* chesnut, chinquipin, or dwarf chesnut, beechnut, hazelnut, filbert.

We may here mention the peccan or Illinois nut. This nut is about the size of a large long acorn, and of an oval form, the shell is easily cracked, and the kernel shaped like that of a walnut. The trees which bear this fruit grow, naturally on the Mississippi and its branches, south of 40° north latitude. They grow well when planted in the southern Atlantic states.

Medicinal plants in New-England. Among the native and uncultivated plants of New-England, the following have been employed

* The same, probably, as Clayton's scaly bark hickory of Virginia.

for medicinal purposes.* Water horehound, blue flag, skunk cabbage, partridgeberry, great and marsh plantain, witch hazel, hound's tongue, comfrey, bear's ear sanicle, appleperu, bittersweet, tivertwig, or American mazerion, elm,† great laserwert and wild angelica, cow parsnep; this plant is possessed of valuable medicinal properties; angelica, or American masterwort, water elder, elder, chickweed, pettimorel, or life of man, sarsaparilla, marsh rosemary, sundew, Solomon's seal, adder's tongue, unicorn, sweet flag, several species of Jock, bistort, arsmart, spicewood or feverbush, sassafras, consumption root, rheumatism weed, mouse ear, gargit or skoke, wild hyssop, agrimony, common evens, or herb bennet, water evens, or throat root, cohush; this is a valuable plant; blood root, or puccoon, celandine, yellow water lily, pond lily, catmint or catnip, head betony, horse-mint, spearmint, watermint, and penniroyal, ground ivy, or gill-go-over-the-ground, hedge nettle, horehound, motherwort, wild majorum, wild lavender, wood betony, shepherd's purse or pouch, water cresses, cranesbill, marsh mallow, mallow, succory, burdock, devil's bit; the root resembles the European devil's bit, from which circumstance the English name has probably been applied to this plant; tansy, wormwood, life everlasting, colt's foot, golden rod, elecampane, mayweed, yarrow, American pride, three other species of lobelia, dragon root, stinging nettle, white walnut, butternut, or oilnut, swamp willow, sweet gale, white hellebore, or pokeroor, moonwort, female fern, hart's tongue, spleenwort, lungwort, black maidenhair.

Among a great variety of other medicinal plants in the southern and middle states are Indian pink root, an excellent vermifuge, sena, clivers or goose grass, palma christi, from which the castor oil is extracted, several species of mallow, Indian physic, pleurisy root, Virginia snake root, black snake root, Seneca rattlesnake root, valerian, ginseng, angelica, cassava.

Forest Trees. Were we possessed of accurate materials for the purpose, it would far exceed the limits of a work embracing such a variety of subjects, to give a complete catalogue of our trees. From the foregoing catalogues the reader must necessarily conclude that they are very numerous. And it ought to be observed that almost all of them, for some purpose or other, have been used as timber. Some of the most useful species of trees, however, must not be omitted, and are the following: *Elm*. Of this tree there is but one species, of which there are two varieties, the white and the red. *Wild Cherry*; many species, highly valued for cabinet work. *Locust*; of quick growth, good for fuel, and excellent for posts to set in the ground, and trunnels for ships. These trees are much more scarce than formerly. A species of worm has destroyed many of them. *Birch*; several species, white, black, red or yellow. *Oak*; several species, black, red, three varieties, white shrub or ground oak, ches-

* It is not to be understood that *all* these plants are considered as deserving the attention of physicians, nor yet that this catalogue includes *all* that are used by mere dabblers in medicine, male and female, black and white and red, otherwise it must include the whole vegetable kingdom.

† The bark of the sweet elm is a most excellent mucilage.

nut oak, live oak, black Jack oak ; the two last are peculiar to the southern states. *Chestnut* ; chiefly used for fencing. *Beach* ; three varieties. *Pine* ; eight species ; white, the prince of the American forests, in size and majesty of appearance ; it is found in the greatest abundance in Maine, New-Hampshire, and Vermont, excellent for masts, bowsprits, and yards for ships. Yellow pine ; its plank and boards are used for the floors of houses and the decks of ships. Norway pine, black or pitch pine ; when burnt in kilns it makes the best of charcoal ; its knots and roots being full of the terebinthine oil, when kindled, afford a brighter light than candles ; its soot is collected and used for lampblack. It grows thinly in the New-England and middle, but in the greatest plenty in the southern states, between the seacoast and the mountains. From it they make tar in large quantities. The larch pine ; its turpentine is said to be the same with the Burgundy pitch. Besides these, naturalists reckon the fir, spruce, hemlock. *White Cedar*. *Juniper* or *Red Cedar* ; it produces the juniper berry, which is used in the gin distilleries, and is said to be of a much better quality for making gin than the juniper berries imported from Europe, which are the fruit of a different species. *White Cedar*, of the southern states, different from the white cedar of the northern states. *Cypress* ; found only in the southern states, used for shingles and other purposes ; grows in swamps very large. *White Willow* ; the bark of its root is an excellent substitute for the Peruvian bark. *Ash* ; two species, black or swamp ash and white ash. *Maple* ; three species, white, much used in cabinet work, red, black rock or sugar maple ; its sap has a saccharine quality : and when refined and hardened by boiling and baking, makes a well tasted and wholesome sugar, the manufacture of which has greatly increased in the eastern and middle states, within a few years past.

There is in the United States an infinitude of trees of less note, and many probably equally noticeable with those enumerated, for a catalogue and description of which, the reader is referred (till a more perfect catalogue be furnished by Dr. Cutler and Dr. Barton) to Catesby's Natural History, Marshall's Arbustum Americanum, Dr. Clayton's Flora Virginica, Mr. Jefferson's Notes on Virginia, Mr. Bartram's Travels through North and South-Carolina, &c. Dr. Cutler's paper in the Memoirs of the American Academy, and Dr. Belknap's History of New-Hampshire, vol. iii.

Exotic Fruits. Of these, apples are the most common in the United States. They grow in the greatest plenty and variety in the eastern and middle states ; and the cider which is extracted from them affords the most common and wholesome liquor that is drank by the inhabitants. The *crab apple*, though not an exotic, on account of its being a genuine, but distinct species of the apple, ought to be mentioned in this connexion. It grows in all parts of N. America, which have been explored, from the Atlantic as far west as the Mississippi. Its blossoms are remarkably fragrant ; its fruit small, possessing, perhaps of all vegetables, the keenest acid. The cider made of this fruit is admired by connoisseurs. It makes excellent vinegar. The European crab apple is very different from

this. The other exotic fruits are pears, peaches, quinces, mulberries, plums, cherries, currants, barberries; of all which, except quinces and barberries, we may have many species and varieties. These with a few apricots and nectarines, flourish in the eastern states, and are in perfection in the middle states.*

The exotic fruits of the southern states, besides those already mentioned, are figs, oranges, and lemons.

Pulse and Hortuline Plants and Roots. Beside those transplanted from Europe to America, of which we have all the various kinds that Europe produces, the following are natives of this country; potatoes, ground nuts, a sort of potatoe, probably a species, highly relished by some people, tobacco, pumpkins, cymplings, squashes, cantelopes, melons, beans, peas, hops, probably others.

Zoology.] America contains at least one half, and the United States, about one fourth of the quadrupeds of the known world. Some of them are common to both continents; others are peculiar to the western. Comparing individuals of the same species, in the two continents, some are perfectly similar; between others there is some difference in size, color, or other circumstances; in a few instances the animal of the eastern continent is larger than the American; in most the reverse is the case. The following is a catalogue of the quadrupeds in the United States.†

Mammoth	* Sallow Cougar	Woodchuck	* American Rat
* Bison	* Gray Cougar	Urchin	* Shrew Mouse
* Moose	* Mountain Cat	* Hare	* Purple Mole
* Caribou	* Lynx	* Raccoon	* Black Mole
* Red Deer	* Kincajou	* Fox Squirrel	* Water Rat
* Fallow Deer	* Weasel	* Gray Squirrel	* Beaver
* Roe	* Ermine	* Red Squirrel	* Musquash
* Bear	* Martin	* Striped Squir.	* Morse
* Wolverine	* Mink	* Flying Squir.	* Seal
* Wolf	* Otter	* Field Mouse	Maniti
* Fox	* Fisher	Bat	Sapajou
* Catamount	* Skunk	* Ground Mouse	Sagoin
* Spotted Tyger	* Opossum	* Wood Rat	

N. B. Those animals to which an asterism (*) is prefixed, are fur animals, whose skins are sometimes dressed in alum, with the hair on, and worn in dress; or whose fur or soft hair is used for various manufactured purposes.

The fallow deer, gray fox, martin, otter, opossum, woodchuck, hare, some of the squirrels, and the beaver have been tamed. Prob-

* "In regard to tree fruit," says Dr. Tenney, "we are in too northern a climate to have it of the first quality, without particular attention. New-York, New-Jersey, and Pennsylvania have it in perfection. As you depart from that tract, either southward or northward, it degenerates. I believe, however, that good fruit might be produced even in New-Hampshire, with suitable attention."

Belknap's Hist. N. H. vol. iii. p. 140.

† The author is indebted to Dr. Fisher, of Beverly, for a great part of this article.

ably most of these and some others might be perfectly domesticated. It has been observed of our wild animals in general, that they are not of so savage a nature as those in Europe.

MAMMOTH. This name has been given to an unknown animal, whose bones are found in the northern parts of both the old and new world. From the form of their teeth, they are supposed to have been carnivorous. Like the elephant they were armed with tusks of ivory; but they obviously differed from the elephant in size; their bones prove them to have been 5 or 6 times as large. These enormous bones are found in several parts of N. America, particularly about the salt licks or springs, near the Ohio river. These licks were formerly frequented by a vast number of graminivorous animals, on account of the salt, of which they are excessively fond. From the appearance of these bones, some of which are entirely above ground, others wholly buried, it is probable that the animals died at different periods; some perhaps as lately as the first settlement of this country by the Europeans.

BISON, or WILD OX. This animal has generally been called the buffaloe, but very improperly, as this name has been appropriated to another animal. He is of the same species with our common neat cattle; their difference being the effect of the domestication of the latter. Compared with the domestic ox, the bison is considerably larger, especially about the fore parts of his body. On his shoulders arises a large fleshy or grisly substance, which extends along the back. The hair on his head, neck and shoulders, is long and woolly, and all of it is fit to be spun, or wrought into hats. Is found in the middle states.

These animals were once exceedingly numerous in the western parts of Virginia and Pennsylvania; and so late as the year 1766, herds of 400 were frequently seen in Kentucky. This animal is found of the largest size, and in the greatest numbers, on the Mississippi, in about 43° N. lat. corresponding in climate to about 42° on the Atlantic coast, which is found to be most favourable to the ox.

The American forests abound with various animals of the deer kind. Naturalists have arranged them differently. I have followed M. de Buffon, who has reduced them all to the several species known in Europe.

MOOSE. Of these there are two kinds, the black and the gray. The black are said to have been from 8 to 12 feet high; at present they are very rarely seen. The gray moose are generally as tall as a horse, and some are much taller; both having spreading, palmated horns, weighing from 30 to 40 pounds. They are found in New-England.

CARIBOU. This animal is distinguished by its branching, palmated horns, with brow antlers. He is probably the reindeer of the northern parts of Europe. From the tendons of this animal, as well as of the moose, the aboriginal natives made very tolerable thread. Found in the District of Maine.

DEER. The *Red Deer** has round branching horns. Of this species we have three or four different kinds or varieties; one of which, found on the Ohio river, and in its vicinity, is very large, and there commonly called the Elk.

The **FALLOW DEER*** has branching palmated horns. In the United States these animals are larger than the European, of a different color, and supposed by some to be of a different species. In the southern states are several animals supposed to be varieties of the **ROE DEER**.

BEAR. Of this animal two sorts are found in the northern states; both are black, but different in their forms and habits. One has short legs, a thick, clumsy body, is generally fat, and is very fond of sweet, vegetable food, such as sweet apples, Indian corn in the milk, berries, grapes, honey, &c. Probably he is not carnivorous. As soon as the first snow falls he betakes himself to his den, which is a hole in a cleft of rocks, a hollow tree or some such place; here he gradually becomes torpid; and dozes away the winter, sucking his paws, and expending the stock of fat which he had previously acquired.

The other sort is distinguished by the name of the ranging bear, and seems to be a grade between the preceding and the wolf. His legs are longer, and his body more lean and gaunt. He is carnivorous, frequently destroying calves, sheep, and pigs, and sometimes children. In winter he migrates from the north to the southward. The *former* appears to be the common black bear of Europe, but larger, some weighing upwards of 400 pounds; the *latter* corresponds to the brown bear of the Alps; and is probably of the same species with those spoken of 2 Kings, ii. 24th, which formerly inhabited the mountainous parts of Judea, between Jericho and Bethel. Found in all the states.

The **WOLVERENE**, called in Canada the carcajou, and by hunters the beaver-eater, seems to be a grade between the bear and the woodchuck. He is probably the badger of Europe. His length is $1\frac{1}{2}$ feet and upwards; his circumference nearly two feet; his head and ears resemble a woodchuck's; his legs short; feet and paws large and strong; tail about 7 inches long, black and very bushy or shaggy; hair about two inches long, and very coarse; his head sallow gray; back, almost black; breast, spotted with white; belly, dark brown; sides and rump, light reddish brown. This animal lives in holes, cannot run fast, and has a clumsy appearance. He is very mischievous to hunters, following them when setting their traps, and destroying their game, particularly the beaver. Found in the northern states.

WOLF. Of this animal, which is of the dog kind, or rather the dog himself in his savage state, we have great numbers, and a considerable variety in size and color. The dimensions of a skin, measured while writing this account, were as follows: Length of the

* The male of the Red Deer is called *Stag*; the female, *Hind*; the young, *Calf*. The male of the Fallow Deer is called *Buck*; the female, *Doe*; the young, *Fawn*. The *Roe Buck* and *Roe Doe* are the male and female of the *Roe*.

body 5 feet; the fore legs 18 inches; of the hind legs 15 inches; of the tail 18 inches. The circumference of the body was from $2\frac{1}{2}$ to 3 feet. The color of these animals in the northern states, is generally a light, dirty sallow, with a list of black along their back. In some, the black is extended down their sides, and sometimes forms waving streaks; others are said to be spotted: Some of them, particularly in the southern states, are entirely black, and considerably smaller. Found in all the states.

FOX. Of foxes we have a great variety; such as the silver fox, red fox, gray fox, cross fox, brant fox, and several others. Naturalists have generally supposed that there is more than one species of foxes, but they differ very much in their mode of arranging them. It is highly probable, however, that there is but one species of these animals, as they are found in all their varieties of size, and of shades variously intermixed, in different parts of the United States. Foxes and other animals furnished with fur, of the northern states, are larger than those of the southern.

CATAMOUNT. This animal, the most dreaded by hunters of any of the inhabitants of the forests, is rarely seen, which is probably the reason why no account of him has ever been published, to our knowledge, except what is contained in a letter of Mr. Collinson's to M. de Buffon. The dimensions of one, killed a few years ago, in New-Hampshire, as nearly as could be ascertained by the skin, were as follows: The length of his body (including the head) 6 feet; circumference of his body $2\frac{1}{4}$ feet; length of his tail 3 feet; and of his legs about 1 foot. The color, along his back, is nearly black; on his sides, a dark reddish brown; his feet black. He seems not calculated for running, but leaps with surprising agility. He is found in the northern and middle states.

SPOTTED TYGER. Its skin resembles that of the African spotted tyger, except that the stripe along the back from the head to the tail is not so dark. It measures from 5 to 6 feet in length and 4 feet in circumference. It is found on the Mississippi near and above New-Orleans.

SALLOW COUGAR. The body of this animal is about 5 feet long; his legs longer in proportion to his body, than those of the common cat. His color is a dark sallow. In his habits and manners he resembles the rest of the family. He is found in the southern states, and there called the tyger.

GRAY COUGAR. This animal in its form resembles the preceding; but is of a uniform gray color, and of a larger size. One of about a year and a half old was, in 1796, shown in Charlestown. He had been reared in confinement and was then growing. His body measured about 5 feet, and his tail 3. Some are said to have been found in their native forests nearly twice as long. He played with a cat, as a cat does with a mouse, and afterwards killed and ate it. It is strong, active fierce, and untameable. Found in the western parts of the middle states.

MOUNTAIN CAT. (*Pardalis*, Linn. *Ocelot*, de Buffon.) The length of his body is from $3\frac{1}{2}$ to 4 feet; his tail is about 2 feet. His color is a sallow ground, with black spots and stripes. The

male has a black list along his back, and is the most beautiful animal of the cat kind. He is exceedingly fierce, but will seldom attack a man. Found in the southern states.

LYNX. We have three kinds of the lynx, each probably forming a distinct species. The *first* (*Lupus cervarius*, Linn. 3d Edit.) is called by the French and English Americans, *Loup cervier*.* He is from 2 and a half to 3 feet in length; his tail is about five inches. His hair is long, of a light gray color, forming, in some places, small, irregular, dark shades; the end of his tail is black. His fur is fine and thick. He is the lynx of Siberia, and some of the northern parts of Europe. A few may be found in the north-eastern parts of the District of Maine; but in the higher latitudes they are more numerous.

The *second* (*Catus cervarius*, Linn.) is called by the French Americans, *Chat cervier*; and in New-England the wildcat. He is considerably less than the former, or the *Loup cervier*. He is from 2 to 2 and a half feet long; his tail is proportionably shorter, about 3 inches long, and wants the tuft of black hair on the end of it. His hair is shorter, particularly on his legs and feet; is of a darker color, brown, dark sallow and grey, variously intermixed. His fur is said to be of a very different quality; his ears are shorter, and he has very little of the pencil of black hairs on the tips of them, which is so remarkable in the former kind. This animal destroyed many of the cattle of the first settlers of New-England.

The *third* species is about the size of a common cat. The color of the male is a bright brown or bay, with black spots on his legs. His tail is about 4 inches long, and encircled by 8 white rings: The female is of a reddish gray. Found in the middle and southern states.

KINCAJOU. This animal is frequently confounded with the carcajou, though he resembles him in nothing but the name. He belongs to the family of cats; at least he very much resembles them. He is about as large as a common cat, and is better formed for agility and speed, than for strength. His tail gradually tapers to the end, and is as long as his whole body. His color is yellow. Between him and the fox there is perpetual war. He hunts in the same manner as do other animals of that class; but being able to suspend himself by twining the end of his tail round the limb of a tree, or the like, he can pursue his prey where other cats cannot; and when he attacks a large animal, his tail enables him to secure his hold till he can open the blood vessels of the neck. In some parts of Canada, these animals are very numerous, and make great havoc among the deer, and do not spare even the neat cattle. But we have heard of none in these states, except a few in the northern parts of New-Hampshire.

The **WEASEL** is about 9 inches in length; his body is remarkably round and slender; his tail long and well furnished with hair; his legs very short, and his toes armed with sharp claws. His hair

* Pronounced Loocervée.

is short and thick, and of a pale, yellowish color, except about the breast, where it is white. This is a very sprightly animal; notwithstanding the shortness of its legs, it seems to dart rather than to run. He kills and eats rats, striped squirrels, and other small quadrupeds: he likewise kills fowls, sucks their blood, and esteems their eggs a delicacy.

The **ERMINE** does not differ materially from the weasel, in size, form or habits; even his color is the same in summer, except that the end of his tail is black, and the edges of his ears and toes are white. In winter he is entirely white except the tip of his tail. He is generally considered as forming a species distinct from the weasel; but Linnæus makes them the same. They are found in Canada; and Dr. Belknap mentions that a few have been seen in New-Hampshire.

In addition to the preceding, we have another variety of this family. It appears to differ from the weasel in no respect except its color, which is perfectly white, both in summer and winter.

MARTIN. This animal is formed like the weasel; is generally about 16 inches long, and of a sallow color; but his size, and the shades of his color, vary in different parts of the country. Some have spots of yellow on the breast, others of white, and others have none. He keeps in forests, chiefly on trees, and lives by hunting. Found in the northern states.

MINK. The mink is about as large as a martin and of the same form. The hair on its tail is shorter; its color is generally black; some have a white spot under their throats, others have none; they burrow in the ground, and pursue their prey both in fresh and salt water. Those which frequent the salt water are of a larger size, lighter color, and have inferior fur. They are found in considerable numbers both in the southern and northern states.

OTTER. The otter very much resembles the mink in its form and habits. Its color is not so dark; its size much larger, being about 3 feet long and 15 inches in circumference. It lives in holes in banks near the water, and feeds on fish and amphibious animals. Found in all the states.

FISHER. In Canada he is called pekan; in these states frequently the black cat, but improperly, as he does not belong to the class of cats. He is from 20 to 24 inches in length, and 12 in circumference. His tail is little more than half his length; its hair long and bushy. His fore legs about 4 and a half inches long, his hinder legs 6 inches. His ears short and round. His color is black, except the head, neck, and shoulders, which are a dark gray. He lives by hunting, and occasionally pursues his prey in the water. Found in the northern states.

SKUNK. This animal is about a foot and a half long, of a moderate height, and size in proportion to his length. His tail is long and bushy; his hair long and chiefly black; but on his head, neck and back is found more or less of white, without any regularity or uniformity. He appears to see but indifferently when the sun shines and therefore in the day time, keeps close to his burrow. As soon as the twilight commences, he goes in quest of his food, which is

principally beetles and other insects: He is also very fond of eggs and young chickens. His flesh is said to be tolerable good, and his fat is sometimes used as an emollient. But what renders this animal remarkable is his being furnished with organs for secreting and retaining a liquor, volatile and fetid beyond any thing known, and which he has the power of emitting to the distance of a rod or more, when necessary for his defence. When this ammunition is expended he is quite harmless. This volatile factor is a powerful antispasmodic. Found in all the states.

Another *stinkard* called the *squash*, is said by Buffon to be found in some of the southern states. He is of a chesnut color; climbs trees and kills poultry.

OPOSSUM. This animal is about a foot and a half long; has a long pointed nose, furnished with long stiff hairs; ears thin and naked; tail naked, nearly as long as the body, and capable of holding the animal suspended; legs short; feet small and naked. He uses his fore paws like a monkey. His body is well covered with a woolly fur, white at the roots and black at the ends. His hair is long, thin, and coarse; its color black and white, forming a gray of various shades; and these different shades are often so intermixed as to give a spotted or variegated appearance. But the most singular part of this animal is a kind of false belly or pouch, with which the female is furnished; it is formed by a duplicate of the skin; is so placed as to include her teats, and has an aperture which she can open and shut at pleasure. She brings forth her young from four to six at a time, while they are not bigger than a bean; incloses them in this pouch, and they, from a principle of instinct, affix themselves to her teats: Here they remain and are nourished till they are able to run about, and are afterwards taken in occasionally, particularly in times of danger. The opossum feeds on vegetables particularly fruit. He likewise kills poultry, sucks their blood and eats their eggs. His fat is used instead of lard or butter. Found in the southern and middle states.

WOODCHUCK. (*Monax*, de Buffon.) His body is about 16 inches long, and nearly the same in circumference; his tail is moderately long, and full of hair. His color is a mixture of sallow and gray. He digs a burrow in or near some cultivated field, and feeds on pulse, the tops of cultivated clover, &c. He is generally very fat, excepting in the spring. The young are good meat; the old are rather rank and disagreeable. In the beginning of October they generally retire to their burrows, and live in a torpid state about six months. In many respects he agrees with the *marmot* of the Alps; in others he differs, and on the whole is probably not the same.

An animal resembling the woodchuck is found in the southern states, which is supposed to form another species.

URCHIN. The urchin or urson, is about two feet in length, and, when fat, the same in circumference. He is commonly called hedge-hog or porcupine, but differs from both these animals in every characteristic mark, excepting his being armed with quills on his back and sides. These quills are nearly as large as a wheat straw;

from 3 to 4 inches long. and, unless erected, nearly covered by the animal's hair. Their points are very hard, and filled with innumerable very small barbs or scales, whose points are raised from the body of the quill. When the urchin is attacked by a dog, wolf, or other beast of prey, he throws himself into a posture of defence, by shortening his body, elevating his back, and erecting his quills. The assailant soon finds some of those weapons stuck into his mouth or other part of his body, and every effort which he makes to free himself, causes them to penetrate the farther; they have been known to bury themselves entirely in a few minutes. Sometimes they prove fatal; at other times they make their way out again through the skin from various parts of the body. If not molested, the urchin is an inoffensive animal. He finds a hole or hollow, which he makes his residence, and feeds on the bark and roots of vegetables. His flesh in the opinion of *hunters*, is equal to that of a sucking pig. Is found in the northern states.

HARE. Of this animal we have two kinds: The one is commonly called the white rabbit or cony; the other simply the rabbit; but from the proportional length of their hinder legs, and other specific marks, they both belong to the family of the hare. The former has a covering of coarse white hair, which comes on before the winter, and falls off the ensuing spring. He is about half the size of a large European hare, and twice as large as the other kind. The latter burrows in the ground, like a rabbit. They are both found in the same tract of country, but have not been known to associate. The former is found in the northern states, and appears to be the same as the hare of the northern part of Europe; the latter is found in all the states, and is probably a species peculiar to America.

RACCOON. The racoon, in the form and size of his body, resembles the fox; his legs are larger and shorter. His toes are long, and armed with sharp claws. His body is gray; his tail annulated with alternate rings of black and brown. In his manners he resembles the squirrel; like him he lives on trees, feeds on Indian corn, acorns, &c. and serves himself with his fore paws. In the northern states, he is said to betake himself to a hollow tree, or some hole, and lie torpid during the winter. His flesh is good meat, and his fur is valued by the hatmakers. He is found in all the climates in the temperate zone in N. America.

The Fox SQUIRREL. Of this animal there are several varieties, black, red, and gray. It is nearly twice as large as the common gray squirrel. Found in the southern states, and is peculiar to this continent.

The GRAY SQUIRREL of America does not agree exactly with that of Europe, but is generally considered as of the same species. Its name indicates its general color; but some are black; and others black on the back, and gray on the sides. They make a nest of moss in a hollow tree, and here they deposit their provision of nuts and acorns; this is the place of their residence during the winter, and here they bring forth their young. Their sum-

mer house, which is built of sticks and leaves, is placed near the top of a tree. They sometimes migrate in considerable numbers. If in their course they meet with a river, each of them takes a shingle, piece of bark, or the like, and carries it to the water; thus equipped they embark, and erect their tails to the gentle breeze, which soon wafts them over in safety; but a sudden flaw of wind sometimes produces a destructive shipwreck. The greater part of the males of this species are found castrated.

A gray squirrel is found in Virginia, nearly twice as large as this. Whether it be the same, or a different species, is uncertain.

The **RED SQUIRREL** is less than the gray squirrel. It has a red list along its back; gray on its sides, and white under its belly. It differs in some respects from the common European squirrel; but M. de Buffon considers it as the same species. Its food is the same as that of the gray squirrel, except that it sometimes feeds on the seeds of the pine and other evergreens; hence it is sometimes called the pine squirrel, and is found further to the northward than the gray squirrel. It spends part of its time on trees in quest of food; but considers its hole, under some rock or log, as its home.

The **STRIPED SQUIRREL** is still less than the last mentioned. Its color is red. It has a stripe of black along its back; at the distance of about half an inch, on each side is a stripe of white, bordered with very narrow stripes of black. Its belly is white. In the males, the colors are brighter and better defined than in the females. Found in the northern and middle states.

FLYING SQUIRREL. This is the least of the class of squirrels. It is of a reddish gray on the body, and white under the belly. A duplicature of the skin connects the fore and hinder legs together; by extending this membrane it is able to leap much farther, and to alight with more safety than other squirrels. Its tail, likewise, which is flat, serves to direct and assist its course. When it undertakes to fly from one tree to another, at some rods distance, it mounts to a sufficient height, and then darts in a right line to its object, forming in its descent an angle with the horizon of about 45° . Its eyes are large and prominent; and it appears not to see well when the sun shines; by day, therefore, it generally lies concealed; but in the evening is very brisk and lively. It lives in the holes of trees, and feeds on seeds, nuts, and grain. Is found in all the states, and in the north of Europe.

FIELD MOUSE. The colour of this animal is a reddish brown on the body, and a dirty white under the belly. Compared with the house mouse his body is somewhat longer, and considerably larger. His tail is larger and shorter. He lives in fields among the grass, and appears quite inoffensive.

GROUND MOUSE. This animal is larger than the field mouse, but similar in form, excepting that the nose is more blunt. His color nearly resembles a slate on the body, lighter under the belly. They form burrows under the ground, and often destroy young fruit trees in the winter by eating their bark; in fields and mead-

ows, it feeds on the roots of grass, sometimes leaving a groove in the sward, which appears as if it had been cut out with a gouge. In woods they are said to feed on acorns, and to lay up a large store of them in their burrows.

BAT. The bat very much resembles the field mouse in form and size ; but is so enormously extended, that being connected together by a thin membrane they furnish the animal with wings. They frequent the cavities of old buildings, from whence they issue in the twilight, and feed, on the wing, upon the insects which are then to be found flying. In the day time they keep themselves concealed, and become torpid during the winter. Common to N. America and Europe.

WOOD RAT. "This is a very curious animal ; not half the size of the domestic rat ; of a dark brown or black color ; their tails slender and short in proportion, and covered thinly with short hair. They are singular with respect to their ingenuity and great labor in constructing their habitations, which are conical pyramids, about 3 or 4 feet high, constructed with dry branches, which they collect with great labor and perseverance, and pile up without any apparent order ; yet they are so interwoven with one another, that it would take a bear or wild cat some time to pull one of these castles to pieces, and allow the animals sufficient time to retreat with their young.

"There is likewise a ground rat, twice as large as the common rat, which burrows in the ground." *Bartram's Travels.*

AMERICAN RAT. This animal has a long, naked, and scaly tail : the head is long shaped, with a narrow pointed nose, the upper jaw being much larger than the lower ; the ears are large and naked. Its color is of a deep brown inclining to ash on the belly ; and the fur is coarse and harsh. It is probably this species which is said (*Kalm's Trav.* II. 48) to live among the stones and clefts of rocks, in the blue mountains of Virginia, at a distance from the peopled part of the country, which comes out only at night and makes a terrible noise. *Encyc. Brit.*

SHREW MOUSE. This is the smallest of quadrupeds, and holds nearly the same place among them as the humming bird does among the feathered race. Some of the European shrew mice ; are three inches long : we have seen but two or three of the American, and those dried ; but should not judge that those ever exceeded 2 inches. Their head which constitutes above one third of their whole length, has some resemblance to that of a mole ; the ears are wanting ; their eyes scarcely visible ; the nose very long, pointed and furnished with long hairs. In other respects they resemble the common mouse. They live in woods, and are supposed to feed on grain and insects. Found in New-England.

MOLE. The purple mole is found in Virginia ; the black mole in New-England, living in and about the water : They differ from one another, and from the European.

The **WATER RAT** is about the size of the common rat ; brown on the back and white under the belly ; feeds on aquatic animals.

BEAVER. The beaver is an amphibious animal, which cannot live for any length of time in the water; and can exist without it, provided he has the convenience of sometimes bathing himself. The largest beavers formerly were found four feet in length, and weighed 50 or 60 pounds. At present they are not more than 3 feet in length, and may weigh from 25 to 30 pounds. The head of this animal is large, and his ears short and round. Their fore teeth are prominent, long, broad, strong and grooved or hollowed like a gouge. Their fore legs are short, with toes separate; their under legs are long, with toes webbed. The tail is large, broad, and scaly, resembling the body of a fish. Their color is generally a dark brown, but varies according to the climate they inhabit. Their hair is long and coarse; the fur very thick, fine and highly valued. The castor used in medicine is found in sacs formed behind the kidneys.

Their houses are always situated in the water; sometimes they make use of a natural pond, but generally they choose to form one by building a dam across some brook or rivulet. For this purpose they select a number of saplings, of soft wood, generally of less than 6 inches in diameter, but sometimes of 16 or 18 inches; these they fell, and divide into proper lengths, and place them in the water, so that the length of the sticks make the width of the dam. These sticks they lay in mud or clay, their tails serving them for trowels, as their teeth did for axes. These dams are six or eight feet thick at bottom; sloping on the side opposed to the stream; and are about a quarter as broad at top as at bottom. Near the top of the dam they leave one or more waste ways, or sliding places to carry off the surplus water.

The formation of their cabins is no less remarkable. They consist of two stories, one under, the other above water. They are shaped like the oval beehive; and of a size proportioned to the number of inhabitants. The walls of the lower apartment are two or three feet thick, formed like their dams; those of the upper story are thinner, and the whole on the inside plastered with mud. Each family constructs and inhabits its own cabin. The upper apartments are curiously strewed with leaves, rendered neat, clean and comfortable. The winter never surprizes these animals before their business is completed; for their houses are generally finished by the last of September, and their stock of provisions laid in, which consists of small pieces of wood deposited in the lower apartments. Before a storm all hands are employed in repairing or strengthening their dams. They retain this industrious habit even after they are domesticated. In summer they roam abroad and feed on leaves, twigs, and food of that kind. These beavers are considered as the same species as those in Europe, but are vastly superior to them in every respect.

There is likewise a race of beavers, called *terriers*, who dig holes and live a solitary unsocial life. These are probably savages, who have never formed themselves into societies, consequently have not

made those improvements, which are to be acquired only in a social state Found in all the states.

The **MUSQUASH** or **MUSK RAT**, is about 15 inches in length, and a foot in circumference. His tail is nearly a foot long; his hair very short; the color on his back dark; on his sides generally reddish; his head and tail very much resemble those of a rat. This animal is furnished with glands, which separate a substance that has the smell of musk. In his mode of living, he is a distant imitator of the beaver: builds a rude cabin in shallow water, and feeds on vegetables. Found in the northern and middle states.

The **MORSE** or **SEA COW**, more properly called the sea elephant, has two large ivory tusks, which shoot from the upper jaw: its head also is formed like that of the elephant, and would entirely resemble it in that part if it had a trunk; but the morse is deprived of that instrument which serves the elephant in place of an arm and hand, and has real arms. These members, like those of the seal, are shut up within the skin, so that nothing appears outwardly but its hands and feet. Its body is long and tapering, thickest towards the neck; the toes and hands or feet, are covered with a membrane, and terminated by short and sharp-pointed claws. Excepting the two great tusks, and the cutting teeth, the morse perfectly resembles the seal; it is only much larger and stronger, the morse being commonly from twelve to sixteen feet in length, and eight or nine in circumference; whereas the largest seals are no more than 7 or 8 feet long.

The **SEAL**, of which there are several species, is an amphibious animal, which lives the greater part of the time in the sea, and feeds on marine plants. The morse and seal formerly frequented our northern shores; but at present have nearly forsaken them.

MANATI. This animal forms the connecting link between beasts and fishes. It is a very clumsy mis-shapen animal, with a head thicker than that of an ox; eyes small; and the two feet are placed near the head, for the purpose of swimming. It is of sufficient size to form a load for two oxen. Its flesh, which is more like beef than fish, is said to be excellent for eating. They are about 15 feet long, and six broad. As this animal has only fore feet, it has obtained the name of *Manati*, i.e. "an animal with both hands." This animal has been found in the rivers which run from Georgia into the gulf of Mexico.

SAPAJOU. SAGOIN. There are various species of animals said to inhabit the country on the lower part of the Mississippi, called sapajous and sagoins. The former are capable of suspending themselves by their tails: the latter are not. They have a general resemblance to monkeys; but are not sufficiently known, to be particularly described.

Birds. Several catalogues of birds in the southern and middle states, have been published by different authors; and one, of those in New-Hampshire, by Dr. Belknap; but no general catalogue of the birds in the American states has yet appeared. A catalogue, claiming to be the most full and complete of any yet published,

though far from perfection, carefully selected from Bartram's travels, Jefferson's Notes on Virginia, Belknap's History of New-Hampshire, and a Manuscript furnished by Dr. Cutler was published in former editions of this work, filling 8 pages, which is omitted in this edition to give place to new and more appropriate matter.

The birds of America, says Catesby, generally exceed those of Europe in the beauty of their plumage, but are much inferior to them in the melody of their notes.

The middle states, including Virginia, appear to be the climates, in North-America, where the greatest number and variety of birds of passage celebrate their nuptials and rear their offspring, with which they annually return to more southern regions. Most of our birds are birds of passage from the southward. The eagle, the pheasant, grouse and partridge of Pennsylvania, several species of woodpeckers, and crows, blue jay, robin, marsh hen, several species of sparrows or snow birds, and the swallow, are perhaps nearly all the land birds that continue the year round to the north of Virginia.

Very few tribes of birds build or rear their young in the south or maritime parts of Virginia, in Carolina, Georgia and Florida; yet all those numerous tribes, particularly of the soft billed kind, which breed in Pennsylvania, pass, in the spring season, through these regions in a few weeks time, making but very short stages by the way; and again, but few of them winter there on their return southwardly.

It is not known how far to the south they continued their route during their absence from the northern and middle states.

"The SWAN (*Cygnus ferus*) is the largest of the aquatic tribe of birds which is seen in this country. One of them has been known to weigh 36lbs. and to be 6 feet in length, from the bill to the feet, when stretched. It makes a noise resembling that of a trumpet, both when in the water and on the wing." *Belknap*.

The CANADIAN GOOSE (*Anser canadensis*) is a bird of passage, and gregarious. The offspring of the Canadian and common goose are mongrels, and reckoned more valuable than either of them singly, but do not propagate.

The PTARMIGAN (*Tetrao lagopus*) ordinarily inhabits the colder climates about Hudson's Bay, but is sometimes driven, through want of food, to the more northern latitudes. Their feathers are mostly white, covered with down quite to the nails, and their flesh black, and of an exquisite relish.

Probably this is a different bird from Bartram's mountain cock or grouse, though both have the same Linnæan name.

The QUAIL or PARTRIDGE (*Tetrao minor*, s. *coturnix*.) This bird is the Quail of New-England, and the Partridge of the southern states; but is properly neither. It is a bird peculiar to America. The partridge of New-England (*tetrao tympanus*) is the Pheasant of Pennsylvania, but is miscalled in both places. It is a

species of the grouse. Neither the pheasant, partridge, or quail are found in America.

CUCKOO. (*Cuculus Carolinensis.*) These birds are said not to pair like the rest of the feathered tribes. When the female appears on the wing, she is often attended by two or three males.

The **WAKON BIRD**, which probably is of the same species with the Bird of Paradise, receives its name from the idea the Indians have of its superior excellency; the wakon bird being, in their language, the bird of the Great Spirit. It is nearly the size of a swallow, of a brown color, shaded about the neck with a bright green. The wings are of a darker brown than the body. Its tail is composed of four or five feathers, which are three times as long as his body, and which are beautifully shaded with green and purple. It carries this fine length of plumage in the same manner as the peacock does his, but it is not known whether, like him, it ever raises it to an erect position.

The **WHETSAW** is of the cuckoo kind, being, like that, a solitary bird and scarcely ever seen. In the summer months it is heard in the groves, where it makes a noise, like the filing of a saw, from which circumstance it has received its name. *Carver.*

The **HUMMING BIRD** (*Trochillus colubris*) is the smallest of all the feathered inhabitants of the air. Its plumage surpasses description. On its head is a small tuft of jetty black; its breast is red; its belly white; its back, wings and tail of the finest pale green; small specks of gold are scattered over it with inexpressible grace. and to crown the whole, an almost imperceptible down softens the several colors, and produces the most pleasing shades. They are of two kinds, one has a curved, the other a straight bill.

Amphibious Reptiles. Among these are the mud tortoise or turtle (*Testudo denticulata*) Speckled land tortoise (*Testudo carolina.*) Great soft shelled tortoise of Florida (*Testudo naso cylindracea elongato, truncato.* Bartram.) When full grown it weighs from 30 to 40 pounds, (some say 70 pounds) extremely fat and delicious food. Great land tortoise, called gopher; its upper shell is about 18 inches long, and from 10 to 12 broad. Found south of Savannah river.

Two species of fresh water tortoises inhabit the tide water rivers in the southern states; one is large, weighing from ten to twelve pounds, the back shell nearly of an oval form; the other species small; but both are esteemed delicious food. The tortoises of the northern states are of several species, but have not been scientifically designated.

Of the frog kind (*Rana*) are many species. The toad (*Rana bufo*?) several species—the red, brown and black. The former are the largest; the latter the smallest. Pond frog (*Rana ocellata.*) Green fountain frog (*Rana esculanta.*) Tree frog (*Rana maculata.*) Bull frog (*Rana boans.*) Besides these are the dusky brown spotted frog of Carolina, 8 or 9 inches long from the nose to the extremity of the toes; their voice resembles the grunting of a swine. The bell frog, so called because their voice is fancied to be exactly like that of a loud cow bell. A beautiful green frog, whose noise is like the barking of little dogs, or the yelping of puppies.

A less green frog, whose notes resemble those of young chickens. Little gray speckled frog, which makes a noise like the striking of two pebbles together under the surface of the water. There is yet an extremely diminutive species of frogs, called by some, Savannah crickets, whose notes are not unlike the chattering of young birds or crickets. They are found in great multitudes, after plentiful rains, in all the states.

Of lizards (*Lacerta*) we have also many species. The alligator, or American crocodile, is a very large, ugly, terrible creature, of prodigious strength, activity, and swiftness in the water. They are from 12 to 23 feet in length; their bodies are as large as that of a horse, and are covered with horny plates or scales, said to be impenetrable to a rifle ball, except about their heads and just behind their fore legs, where they are vulnerable; in shape they resemble the lizard. The head of a full grown alligator is about three feet long, and the mouth opens nearly the same length. The eyes are comparatively small, and the whole head, in the water, appears at a distance like a piece of rotten, floating wood.

Besides the alligator, we have of this species of amphibious reptiles the brown lizard (*Lacerta punctata*.) Swift (*Lacerta fuscata*?) Green lizard, or little greenameleon of Carolina, about 6 or 7 inches long; it has a large, red gill under its throat, and, like the cameleon, has the faculty of changing its color. The striped lizard or scorpion. Blue bellied, squamous lizards, several varieties. Large copper colored lizard. Swift, slender, blue lizard, with a long slender tail, as brittle as that of the glass snake. The two last are rarely seen, but are sometimes found about old log buildings in the southern states.

Serpents. The characters by which serpents are distinguished are these, the belly is furnished with scuta, and the tail has both scuta and scales. Of these reptiles, the following are found in the United States:—

Rattle Snake	Bluish Green Snake, with	Pine, Horn, or Bull Snake,
Yellow Rattle Snake	a stretched out triangular	with a horny spear in
Small Rattle Snake	snout or Hog-nose	his tail
Bastard Rattle Snake	Snake	Joint Snake
Moccasin Snake	Copper Bellied Snake	Garter Snake
Gray Spotted Moccasin	Black Snake	Striped Snake
Snake of Carolina	White Neck Black Snake	Chicken Snake
Water Viper, with a	Small Brown Adder	Glass Snake
sharp thorn tail.	House Adder	Brownish Spotted Snake
Black Viper	Water Adder	Yellowish White Snake
Brown Viper	Brown Snake	Hissing Snake
White bodied brown eyed	Little Brown Bead Snake	Ring Snake
Snake	Coach Whip Snake	Two Headed Snake
Black Snake with linear	Corn Snake	
rings	Green Snake	
A Snake with 152 scutæ	Wampum Snake	
and 135 scutellæ	Ribbon Snake	

The RATTLE SNAKE (*Crotalus Horridus*) may be ranked among the largest serpents in America. They are from 4 to upwards of 6 feet in length, and from 4 to 6 inches in diameter. Formerly, it is said, they were much larger. Their rattles consist of several

reticulated, crustaceous, or rather horny bags, forming their tails, which, when they move, make a rattling noise, warning people of their approach. It is said they will not attack a person unless previously provoked. When molested or irritated, they erect their rattles, and, by intervals, give the warning alarm. If pursued and overtaken, they instantly throw themselves into the spiral coil; their whole body swells through rage, continually rising and falling like a bellows; their beautiful parti-coloured skin becomes speckled and rough by dilatation; their head and neck are flattened; their cheeks swollen, and their lips constricted, discovering their fatal fangs; their eyes red as burning coals, and their brandishing forked tongues, of the color of the hottest flame, menaces a horrid death. They never strike unless sure of their mark. They are supposed to have the power of fascination in an eminent degree; and it is generally believed that they charm birds, rabbits, squirrels and other animals, in such a manner that they lose the power of resistance, and flutter and move slowly, but reluctantly, towards the yawning jaws of their devourers, and either creep into their mouths, or lie down and suffer themselves to be taken and swallowed. This dreaded reptile is easily killed. One well directed stroke on the head, or across the back, with a stick not larger than a man's thumb, is sufficient to kill the largest; and they are so slow of motion that they cannot make their escape, nor do they attempt it, when attacked. Many different remedies for the bite of a rattle snake have been prescribed and used with different success; the following received from good authority, is recommended as a cure for the bite of all venomous snakes. "Bind a ligature tight round the leg or thigh, above the part bitten, so as to interrupt the circulation; then open or scarify the wound with a lancet, knife or flint, and suck it or let a friend do it; then rub it with any unctuous matter, either animal or vegetable; or if that cannot be procured, make use of salt. Take care to keep the bowels open and free, by drinking sweet oil and milk or cream. If pure honey be at hand, apply it to the wound after opening and sucking in preference to any other thing; and eat plentifully of honey and milk."

The bastard rattle snake is of the nature of the asp or adder of the eastern continent; in form and color resembling the rattle snake; is 8 or 10 inches long; and very spiteful and venomous. Like the rattle snake, they throw themselves into a coil; swell and flatten their bodies; continually darting out their heads, and seem capable of springing beyond their length. Found in the southern states.

The moccasin snake is from 3 to 5 feet in length and as thick as a man's leg; when disturbed by an enemy, they throw themselves into a coil, and then gradually raise their upper jaws till it falls back, nearly touching the neck, at the same time vibrating their long purple forked tongue, and directing their crooked poisonous fangs towards their enemy. In this attitude the creature has a most terrifying appearance. It is said, their bite is incurable; but the probability is, that it is not. Like the rattle snake they are slow in their motion,

and never bite a person unless provoked. Found in abundance in the swamps and low grounds in the southern states.

The other moccasin snake is about 5 or 6 feet long, and as thick as a man's arm; of a pale gray, sky-colored ground, with brown undulatory ringlets.

The black snake is of various lengths from 3 to 6 feet, all over of a shining black; it is not venomous: is useful in destroying rats, and pursues its prey with wonderful agility. It is said that it will destroy the rattle snake by twisting round it and whipping it to death. It has been reported also that they have sometimes twined themselves round the bodies of children squeezing them till they die. They are found in all the states.

The coach whip snake is of various and beautiful colors; some parts brown or chocolate, others black, and others white; it is 6 or 7 feet long, and very slender and active; it runs swiftly and is quite inoffensive; but the Indians, it is said, imagine that it is able to cut a man in two with a jerk of its tail. Like the black snake, it will run upon its tail, with its head and body erect.

The pine or bull snake, called also the horn snake, is the largest of the serpent kind known in N. America, except the rattle snake, and perhaps exceeds him in length. They are pied black and white; are inoffensive with respect to mankind, but devour squirrels, rabbits, and every other creature they can take, as food.

The glass snake has a very small head; the upper part of its body is of a color blended brown and green, most regularly and elegantly spotted with yellow. Its skin is very smooth and shining, with small scales, more closely connected than those of other serpents, and of a different structure. A small blow with a stick will separate the body, not only at the place struck, but at 2 or 3 other places, the muscles being articulated in a singular manner, quite through to the vertebra. They are numerous in the sandy woods of the Carolinas and Georgia.

The joint snake, has a skin as hard as parchment, and as smooth as glass. It is beautifully streaked with black and white. It is so stiff, and has so few joints, and those so unyielding, that it can hardly bend itself into the form of a hoop.

The two-headed snake (*Amphisbæna*) has generally been considered as a monstrous production. I am disposed to believe, however, that it is a distinct species of serpents. I have seen one, and received accounts of three others, found in different parts of the United States. One of these was about 8 inches long, and both heads, as to every outward appearance, were equally perfect, and branching out from the neck at an acute angle. It is said, there are three species of the *Amphisbæna* in Guiana.

The snakes are not so numerous nor so venomous in the northern as in the southern states. In the latter, however, the inhabitants are furnished with a much greater variety of herbs and plants, which afford immediate relief to persons bitten by these venomous creatures. It is an observation worthy of perpetual and grateful remembrance, that wherever venomous animals are found, the

God of nature has kindly provided sufficient antidotes against their poison.

Fishes. Fishes form the fourth class of animals in the Linnaean system. Mr. Pennant, in his British Zoology, distributes fish into three divisions, comprehending six orders. His divisions are into *Cetaceous*, *Cartilagenous*, and *Bony*.

CETACEOUS FISH.

The Whale	Dolphin	Porpoise	Grampus	Beluga
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CARTILAGENOUS.

Lamprey	Brown spotted Gar fish	Red bellied Bream
Skate	Lump fish	Silver or White Bream
Shark	Pipe fish	Yellow Bream
Dog fish	Golden Bream or Sun	Black or Blue Bream
Sturgeon	fish	

BONY FISH.*

Eel	Conger Eel	Cat fish
Snake fish	Skip Jack	Minow
Haddock	Pout	Wreck fish
Cod	Horse Mackerel	King fish
Frost fish	Blue Mackerel	Sole
Pollock	Speckled Mackerel	Mummychog
Small Pollock	Salmon	White fish
Hake	Salmon Trout	Tide Black fish
Sculpion	Trout	Rock Black fish
Plaice	Smelt	Blue fish (Begallo)
Flounder	Pike or Pickerel	Sheep's Head
Halibut	Atherine	Red Drum
Dab	Mullet	Black Drum
Red Perch	Herring	Branded Drum
White Perch	Carp	Sheep's Head Drum
Yellow Perch	Pond fish	Mossbonker
Sea Perch	Toad fish	Shadine
Whiting	Roach	Porsie
Sea Bass	Shad	Dace
Striped Bass	Hard Head	Anchovy
Shiner	Alewife	Flying fish
Chub	Bret	Sword fish
Stickle Back	Sucker	The Angler or Fishing

The WHALE (*Balæna Mysticetus*) is the largest of all animals. In the northern seas some are found 90 feet in length; and in the torrid zone, where they are unmolested, whales have been seen 160 feet in length. The head is greatly disproportioned to the size of the body. In the middle of the head are two orifices, through which they spout water to a great height. The eyes are not larger than those of an ox, and are placed towards the back of the head,

* Probably some that are placed under this division belong to one or other of the preceding. We are not able accurately to class them.

† This fish is found on the south shore of Long Island, New-York; and is described by Pennant, 3d vol. British Zoology, p. 120.

for the convenience of seeing both before and behind. They are guarded by eyelids as in quadrupeds; and they appear to be very sharp sighted, and quick of hearing. What is called *whalebone* adheres to the upper jaw, and is formed of thin parallel laminæ; some of the longest are 12 feet in length: of these there are from 350 to 500 on each side, according to the age of the whale. The tail, which alone it uses to advance itself in the water, is broad and semilunar, and when the fish lies on one side, its blow is tremendous.

The whale louse, Sword fish, and Thresher (a species of *Squalus*) are mortal enemies to the whale, who itself is an inoffensive animal.

Formerly whales were found in plenty upon the coasts of the U. States; at present they are scarce. The principal branch of the whale fishery in the United States is carried on from Nantucket. The enterprise of the Nantucket whalers is remarkable. Not satisfied with the scope which the Atlantic ocean affords them, they have lately proceeded round cape Horn, and penetrated the great Western ocean, in pursuit of whales.

The *BELUGA* (*Delphinus beluga*) is the fourth and last species of the Dolphin genus. The head is short; nose blunt; eyes and mouth small; in each side of each jaw are 9 teeth, short and rather blunt; those of the upper jaw are bent and hollowed, fitted to receive the teeth of the under jaw, when the mouth is closed; it has pectoral fins, nearly of an oval form; beneath the skin may be felt the bones of five fingers, which terminate at the edge of the fin in five very sensible projections. This brings it into the next rank, in the order of beings, with the *Manati*, which we have already described under the head of animals. Found in the northern parts of the American coasts; particularly in the gulf of St. Lawrence and Hudson's bay.

The Lamprey frequents most of the rivers in the New-England states, especially where the passage is not interrupted by dams.

The amphibious Lobster is found in the small brooks and swamps in the back parts of North-Carolina. In its head is found the eye-stone.

It is proper to mention in this place the *Siren* or *Mud-iguana*. It has gills, fins, and two feet; and is in length from 31 to 49 inches. It is an inhabitant of South-Carolina, where it is found in swampy and muddy places by the sides of pools, and under the trunks of old trees that hang over the water, and feeds on serpents. The feet appear like little arms and hands, each furnished with 4 fingers, and each finger with a claw. The head is something like an eel, but more compressed; the eyes are small, and placed as those of the eel are. It is an amphibious animal. The mouth is small in proportion to the length of the body; but its palate and inside of the lower jaw are well provided with many rows of pointed teeth. The skin which is black and full of small scales, resembles shagreen.

Catalogues of insects and vermes, may be found in Dr. Belknap's History of New-Hampshire, vol. iii. page 180—183.

Under this head we introduce an account of that curious animal, distinguished by the names of *Animal Flower*, *Sea Nettle*, but more generally by the name *Sea Anemone*, from its resemblance to the flower of that plant. Their general appearance is like that of a great number of flowers of different sizes, with six expanded leaves in each blossom, and supported on short, thick flower stems, growing from the rocks. When the leaves or arms of the animal are contracted, it resembles a truncated cone, with its base adhering to the rock; but it has the power of assuming a variety of shapes, as that of a large flower with a number of petals, or flower leaves; or of a full blown anemone; or of a large rose or poppy, &c. When the arms or leaves of the larger ones are extended, they are 5 or 6 inches in circumference, and exhibit a great variety and brilliancy of colors, as purple, flesh, green, violet, delicately shaded with brown or black. On touching the leaves or arms, they instantly contract, and when small muscles are offered them, they grasp them in their arms and conduct them to their mouths, which are situated in the centre of the blossom, and directly swallow them. Pieces of shells thus swallowed, are afterwards discharged by the mouth, perfectly cleared of their contents.

The sea anemone, is said to be viviparous, and to produce 5 or 6 young ones at a time. The Abbe Dicquemarre has shewn by a course of curious but cruel experiments,* that these animals possess, in a most extraordinary degree, the power of re-production; so that scarcely any thing more is necessary to produce as many sea anemones as we please, than to cut a single one into so many pieces.

The Wheat fly, commonly but improperly called the Hessian fly, has, of late years, proved destructive to the wheat in various parts of the United States. This insect is probably a non-descript, and peculiar to the United States.†

The Ink or Cuttle fish is a curiosity. It is furnished with a cyst of black liquor, which it emits when pursued by its enemies, and improves this opportunity to make its escape.

Mineralogy.] A minute account of this subject must be deferred to our description of the several states.

Iron exists in great abundance throughout the United States. *Lead* mines are wrought in various places, particularly in Pennsylvania and Virginia. *Zinc* and *manganese* are found in New-York. *Copper* mines have been discovered in Rhode Island, New York, and New-Jersey; and very extensive and rich ones on the southern shore of lake Erie. Native *quicksilver* is found near Reading in Pennsylvania. A *silver* mine exists in New-York. *Gold* has been found in North-Carolina.

Coal is found in the greatest abundance on James river, in Virginia, and in great quantities, also, in Rhode Island, New-York, Pennsylvania, and Maryland. Native *sulphur* exists in very great quantities in New-York. *Marble* is very abundant in Massachusetts, Connecticut, and New-York. *Gypsum*, *alum*, and *asbestos*, are found in various places. An extensive mine of *yellow ochre* has

* See Phil. Trans. for 1778.

† Dr. Mitchell.

lately been discovered in Connecticut ; as has likewise a large mass of pure siliceous earth, fitted to make the best of porcelain.

Mineral Springs.] The most noted of these are Ballstown, Saratoga, and New Lebanon springs, in the state of New-York ; Hot springs and Sweet springs in Virginia, and Stafford springs in Connecticut. The salt springs of Onondago in New-York, the Wabash saline, and the salt springs on the Great Kanhawa will, together with these, be particularly described hereafter.

There is a *Grand Saline* about 280 miles S. W. of Fort Osage, on a branch of the Arkansa river. It is thus described by Mr. Sibley,* who visited it. "It is a hard level plain of reddish colored earth, of an irregular or mixed figure. Its greatest length is from N. W. to S. E. and its circumference fully 30 miles. This plain is entirely covered in dry hot weather from 2 to 6 inches deep with a crust of clean white salt, rather superior to the imported blown salt. In this state the Saline bears a striking resemblance to a field of brilliant snow with a crust on it after a rain. The Grand Saline is environed by ridges of sand-hills, some of which are perfectly naked ; some clothed with verdure and small trees : others afford on their declivities thickets of dwarf plumb-bushes not over 30 inches high, which yielded (23d July) a great abundance of ripe plums, large, and fine. The salt may be easily waggoned from this place to the Arkansa, where keel boats may receive it at certain seasons. The road is through an open prairie all the way, and the distance 80 or 90 miles."

There is also a "*Rock Saline*, about 75 miles N. W. of the Grand Saline, surrounded by naked mountains of red clay and gypsum. It is a level flat, of hard red sand of about 500 acres, through which passes a small stream dividing it into two equal parts, one-fifth of which, or about 100 acres being on the S. W. side, close under a tremendous hill, from the base of which issues several springs of salt water, which gradually cover the plain, and by the action of the sun, is, in certain dry seasons, converted into a solid mass of salt several inches thick. There are also within this plain 4 springs of salt water perfectly saturated, around which, are found hollow cones of rock salt from 12 to 20 inches in thickness. There are times when this section (next the hill) is covered completely with a solid rock of salt from 4 to 12 inches thick, resembling a field of ice in large flakes, the other section produces salt exactly like that of the Grand Saline. The country around the Rock Saline is mountainous, and the Saline can only be approached on foot, or with some difficulty on horseback."

Natural Curiosities.] Probably no other country presents so interesting an object to the eye of curiosity as the falls of Niagara. For a description of these Falls, see p. 105, 106.

The *Table Rock* is a part of the Canada bank, which is on the margin of the great sheet of falling water. It furnishes altogether the most interesting view of the falls. The eye looking up the river beholds it tumbling with strange magnificence over the ledges of

* Factor of the United States.

rocks, which, seen from this place, appear close together, and appear to constitute a single broken cataract. The immense mass of waters, greatly increased in their rapidity by this descent, and perhaps still more by the contraction of the river, rolls with an almost instantaneous motion to the brow of the precipice, and shoots many yards beyond, as it falls over it into the abyss below. The depth of the precipice, the roar of the cataract, the mass of the waters, and above all the inconceivable exertion of power, overwhelm the mind with emotions of sublimity and grandeur; and fill it with new and clearer views of the weakness and littleness of man. Beneath the fall lies a thick mass of foam, which, for a great extent, covers the surface of the water. The whole perpendicular descent is 152 feet. According to Smith 144 feet. In $8\frac{1}{2}$ miles the river descends 264 feet. The quantity of water continually on the top of the rock, and constantly falling over it, Mr. Smith calculates to be 128,563,200 pounds. The depth of the river, beneath the fall, is probably far greater than the height of the fall, for the tallest trees, descending perpendicularly, are lost for several minutes beneath the water before they reappear. The banks of the river below are on both sides perpendicular, of solid rock, and of the same height with the fall. They continue of this height 7 miles to Queenstown. Here the cataract is supposed to have commenced after the deluge, and from this place to have worn its way backward to its present spot. No one who examines the ground will doubt for a moment that this has been the case;* and those who have lived for 20 years on the bank all attest to this retrograde motion. These falls are in lat. 43° N.

For other natural curiosities, in the United States, see this head in the descriptions of the several states.

Grand Divisions.] These have been given, page 208—209.†

* See General Lincoln's opinion, page 106.

† A general name, proper for comprehending the whole territory under the government of the United States, has long been a desideratum. The following was suggested several years ago, in the *AMERICAN GAZETTEER*, and is here inserted for the purpose of showing the great convenience of such a name, and of prompting the proper authorities in due time to adopt this, or such other name, as they shall judge more appropriate.

FREDONIA.

A generic name proposed to be given to the territory now called by the descriptive name of the United States of America, including the annexed territory of Louisiana; bounded N. by Upper and Lower Canada; E. by New-Brunswick and the Atlantic ocean; south by the Floridas and the gulf of Mexico; and west by the chain of mountains which divide the waters of the Mississippi from those of the Pacific ocean. This extensive territory lies between lat. 28° and 50° N. and lon. 65° and 116° W. from Greenwich. Its extreme length is upwards of 2000 miles, and its extreme breadth about 1500. It is estimated to contain nearly 2,000,000 square miles, or about four fifths as many as are contained in all Europe. It is about twice the size of the Chinese empire (which supports upwards of 300,000,000 inhabitants) and, Russia excepted, is by far the largest territory on earth, whose inhabitants live under the same government. The Mississippi river divides Fredonia, nearly in its centre, from N. to S. The vale which this river intersects, contains nearly a million square miles, and is reckoned among the finest portions of the globe. Fredonia has a sea coast of many thousand miles extent, full of convenient harbors. Over the extended surface of Fredonia are scattered, in some parts (particularly New-England) thickly, but generally very sparsely, upwards of seven millions of inhabitants, exclusive of Indians, more than a seventh part of whom are in slavery.

EASTERN STATES ;

OR

NEW-ENGLAND.*

SITUATION AND BOUNDARIES, CLIMATE AND DISEASES, FACE OF THE COUNTRY, MOUNTAINS, CATARACTS, &C. SOIL, RIVERS, LAKES, PONDS AND HARBORS, PRODUCTIONS, FORESTS, POPULATION AND CHARACTER, HISTORY.

Situation and Boundaries.] NEW-ENGLAND lies around the great bay which sets up N. W. between cape Cod and cape Sable, between 41 and 48 degrees N. lat. and between 64 degrees 54 minutes, and 73 degrees 39 minutes W. lon. from Greenwich, and is bounded north by Lower Canada ; east by the province of New-Brunswick and the Atlantic ocean ; south by the same ocean and Long Island Sound ; west by the state of New-York. It lies in the form of a quarter of a circle. Its west line, beginning at the mouth of Byram river, which empties into Long-Island Sound at the southwest corner of Connecticut, lat. 41 degrees, runs a little east of north, until it strikes the 45th degree of latitude, and then curves to the eastward till it strikes the line separating Maine from New-Brunswick, in about lat. 47° 50'. N. Its extreme length is about 626 miles ; its breadth is very unequal from 100 to 200 miles ; containing about 61,000 square miles.

Climate and Diseases.] New-England has a very healthful climate, as is evinced by the longevity of the inhabitants. It is estimated that about one in seven of the inhabitants live to the age of 70 years ; and about one in thirteen or fourteen to 80 years and upwards. No regular disease is known to prevail in any part of it. East winds prevail along the coast in the spring, which are extremely piercing and disagreeable, but not unwholesome. The chilliness of these winds is probably occasioned, by the cold fogs on the fishing banks off cape Sables, driven hither by the east winds.

Northwest, west, and southwest winds are the most prevalent. The weather is less variable than in the middle and especially the southern states, and more so than in Canada. The extremes of the heat and cold, according to Farenheit's thermometer, are from 20° below, to 100° above 0. The medium is from 48° to 50°. The inhabitants of New-England, on account of the dryness of their

* See *Divisions of New-England*, p. 208.

In page 209, in the *Statistical Table*, under the head of *Square Miles*, in the E. States,—read as follows:

Vermont	10,237	Rhode Island	1,580
New-Hampshire	9,491	Connecticut	4,674
Maine	29,080		
Massachusetts proper	6,250	Total	61,312

The *Total* of square miles in the United States, is to be corrected according to the above.

their atmosphere, can endure without inconvenience, a greater degree of heat than the inhabitants of a moisture climate. It is supposed by some philosophers, that the difference of moisture in the atmosphere in Pennsylvania and New-England is such, as that a person might bear at least ten degrees of heat more in the latter than in the former.

The quantity of water which annually falls in England is computed at 24 inches; in New-England from 42 to 48; and yet in the latter they suffer more from drought than in the former. These facts evince the remarkable dryness of the atmosphere, in this eastern division of the United States, and in part account for its singular healthfulness. Winter commonly commences in its severity, about the middle of December; sometimes earlier, and sometimes not till Christmas. Cattle are fed or housed, in the northern parts of New-England, from about the 20th of November to the 20th of May; in the southern parts not quite so long. There have been frosts in every month in the year, though not in the same year; but not very injurious.

The diseases most prevalent in New-England are the following, viz.

Alvine fluxes	Inflammatory,	} Fevers.
St. Anthony's Fire	Slow, Nervous and	
Asthma	Mixed	
Atrophy	Pulmonary Consumption	
Catarrh	Quinsy	
Cholic	Rheumatism	

Of these disorders, the pulmonary consumption is much the most destructive, and is commonly the effect of imprudent exposures to cold and rainy weather and the night air, with the same quantity of clothing, and the wearing of damp linen; and among the lowest orders of people from the intemperate use of strong liquors, especially of fresh distilled rum, which in too many instances proves the bane of morals, and the ruin of families.

The small pox, which is a specific, infectious disease, is not allowed at present to be communicated by inoculation, except in hospitals erected for the purpose, in bye places, and in cases where there is a probability of a general spread of the infection in a town. Nor is this disease permitted to be communicated generally by inoculation, in any of the United States, except New-York, New-Jersey, Pennsylvania, Delaware, and South-Carolina. Vaccination, which has already effected much, it is hoped will soon banish this loathsome and desolating disease from our country and the world.

In populous towns, the prevalent diseases are more numerous and complicated, owing to want of fresh air and exercise, and to luxurious and fashionable living.

In these northern latitudes, the prevalent disorders of the winter months, among the males are inflammatory. Both men and women suffer from not adopting a warmer method of clothing.

The intermittent fever, or ague, is seldom seen within 30 or 40 miles of the seacoast, and scarcely ever, any where in New-England, excepting where they have dammed up the water, for the sake of mill streams, that is to say, where they have converted a running water into nearly a stagnant pond.

A late writer* has observed, "that in other countries, men are divided according to their wealth or indigence, into three classes; the opulent, the middling and the poor; the idleness, luxuries, and debaucheries of the first, and the misery and too frequent intemperance of the last, destroy the greater portion of these two. The intermediate class is below those indulgencies which prove fatal to the rich, and above those sufferings to which the unfortunate poor fall victims: This is therefore the happiest division of the three. Of the rich and poor, the United States furnish a much smaller proportion than any other district of the known world. In Connecticut particularly, the distribution of wealth and its concomitants is more equal than elsewhere, and therefore, as far as excess or want of wealth may prove destructive or salutary to life, the inhabitants of this state may plead exemption from diseases." What this writer says of Connecticut in particular, will, with very few exceptions, apply to New-England at large.†

Face of the Country, Mountains, Cataracts, &c.] New England is a country which presents to the traveller all the varieties of surface which can be found. There is a plain of great extent in the southeastern part of Massachusetts. Extensive plains are also spread through a considerable part of the counties of York and Cumberland, and along the Merrimac through the interior of New-Hampshire. Many others not inconsiderable exist in other places. Vallies of every size, from the great Connecticut valley to the little basin, constitute, of course, no inconsiderable part of a country which is so generally undulating, and whose hills are a proverbial description of its surface. Connecticut valley extends from Saybrook to the Canada line, and is not far from 300 miles in length. Its breadth varies from half a mile to 20 miles, and is charmingly

* Dr. Folke, in a discourse read before the American Philosophical Society.

† The following calculations and observations on the length of man's life, the result of much investigation, are inserted for the gratification of the curious:

Of 1000 persons—23 die at the birth

277 cutting teeth, worms and convulsions

80 small pox

7 measles

8 women in child birth

191 consumptions, asthma, and other complaints of the breast

150 of fevers

12 apoplexy

41 dropsy

789

1000

211 only arrive at advanced age, and from these must be deducted those who are carried off by casualties, and diseases not mentioned above.

diversified by the intrusion of numerous spurs from the two great ranges of mountains, which form its eastern and western boundaries.

The mountains in New-England are either long ranges or separate eminences, and have been already described.

New-England abounds in cataracts and cascades, alternately of great beauty and grandeur; of the first of these, the Connecticut, Housatonic or Hoosatonuc, Onion, Saco, Kennebec, and Penobscot furnish a great number, as do also several smaller rivers. The cascades of the White mountains are perhaps unrivalled in their romantic beauty.

Precipices of great wildness and grandeur are presented by very many of these mountains; the southwestern side of the summit of Mount Washington particularly, which is a perpendicular descent of vast extent, and is superlatively majestic and awful. Of softer or more elegant scenery, few countries furnish so many, or so exquisite varieties as New-England. The fine intervals which border its numerous streams, particularly the noble ones on the Connecticut, are among the most finished beauties of the landscape. To complete the picture, the native and universal verdure which clothes the lean and dry, as well as the moist part, gives an unrivalled cheerfulness to the whole country.

Soil.] The soil of New-England is diversified by every variety from a lean and barren sand, to the richest clays and loams. The first great division of soil is a brown loam every where mixed with gravel. With this the hills, which constitute a great proportion of the whole surface, are universally covered. The soil is always favorable to the production of grass, and in the western parts of the country (when not too moist) of wheat and all other kinds of grain, and of every kind of fruit suited to the climate. Maize, or Indian corn, grows well, even on the wet grounds, where this soil exists.

Clayey soils are more rarely found and are also very productive, especially when manured. A rich loam, varying towards clay, begins at Guilford and Brandford in Connecticut, and spreads through the whole breadth of that state, terminating in West-Springfield. The same soil prevails also in Salisbury and Sharon, and covers about one quarter of the western half of Connecticut. This soil, wherever it exists, is favorable to every kind of cultivation, and is surpassed in goodness by no land in this country.

Sand prevails very commonly on the plains, and abounds in the southeastern part of Massachusetts, in the old colony of Plymouth. The yellow pine plains are commonly a mixture of sand and gravel: are light and warm, and friendly to every production which does not demand a richer soil. The white pine plains are usually covered with loam, as are some of the yellow pine plains, and are not unfrequently fertile. The vallies, almost without exception, are a mould, and friendly to every growth of the climate.

The intervals, which border the various streams, are usually lands formed by earth deposited by the floods, (or, as they are called, freshets) in the spring, and are of the richest quality. Marshes, except of trifling extent, are rare. The most considerable are around

New-Haven, and along the eastern coast of Massachusetts and New-Hampshire.

Rivers.] The principal rivers of New-England are the Schodic, Penobscot, Kennebec, Amariscoggin, Saco, Piscataqua, Merrimac, Parker's, Charles, Taunton, Providence, Thames, Connecticut, Hoo-setonnuc or Stratford, Onion, La Moille, and Missiscoui. Penobscot, Kennebec, Merrimac, and Connecticut are the largest.

Innumerable smaller rivers divide the country in every direction, enrich the soil, adorn the landscape, and furnish mill seats to almost every village. Windmills are erected in very few places. The principal rivers, which have not been already noticed will be described under their proper heads.

Lakes, Ponds, and Harbors.] The principal lakes are Champlain and Memphremagog, lying partly in Vermont, and partly in New-York; Winnipisiogee and Umbagog, in New-Hampshire; Sebacock, Moosehead, Willeguenguagun and Chilmacook or Grand lake, in Maine. Small lakes, commonly called ponds, of every size, are scattered throughout the country. Springs and small brooks water almost every farm.

Harbors abound in Maine and Massachusetts. The most useful ones at present, are those of Machias, Frenchman's Bay, Wiscasset, Portland and Wells, in Maine; Piscataqua, in New-Hampshire; Newburyport, Salem, Marblehead, Boston, Provincetown and New-Bedford, in Massachusetts Proper; Newport, Bristol and Providence, in Rhode-Island; and New-London, New-Haven, and Black Rock in Fairfield, in Connecticut. Burlington Bay is the most considerable harbor in lake Champlain, on the Vermont shore.

Productions.] The produce of the fields in New-England is of every kind suited to the climate. In the western half, and in various parts of the eastern, wheat, before the ravages of the Hessian fly, grew abundantly; but that insect has not a little discouraged the culture of this grain. Indian corn is a most abundant and useful grain, furnishing a very healthful and pleasant food to the inhabitants, and yielding also the best means of fattening their numerous herds of cattle and swine. The kind, frequently called sweet-corn, is perhaps the most delicious of all culinary vegetables, if eaten young, and one of the most salubrious. The juice of the corn-stalk yields a rich molasses, and a spirit little inferior to that of the sugar cane. No cultivated vegetable makes so noble an appearance in the field. Fruits of every kind, which suit a temperate climate, abound, or may be easily made to abound here. The heat of the summer brings to high perfection the peach, apricot and nectarine. The orchards of apple-trees cover a considerable part of the whole country, except the new settlements. Cider is the common drink of the inhabitants of every class, and may often be obtained, in the interior country, by paying for the labor of gathering the apples and making the cider. Pears, plums, cherries, currants, gooseberries, whortleberries, blackberries, bilberries, &c. abound. Perry is made in some parts of the country, but not in great quantities. Butter-nuts, shagbarks, and various other fruits of the different species of the hiccory and hazelnuts, are plentifully furnished by the southern

half of New-England. Madeira nuts and black walnuts are rarely cultivated, although the last grow very easily and rapidly. Hortuline productions are also abundant of every kind, found in this climate, and grow with very little care of culture. Gardening is much improved, and still advancing; many good gardeners are seen in almost every quarter of New-England. But the most important production of New-England, is grass. This not only adorns the face of the country, with a beauty unrivalled in the new world, but also furnishes more wealth and property to its inhabitants than any other kind of vegetation. A farm of two hundred acres of the best grazing land, is worth, to the occupier, as much as a farm of three hundred acres of the best tillage land. The reason is obvious. Far less labor is necessary to gather the produce and convey it to market.

The beef and pork of New-England are abundant and excellent, and feed the inhabitants of many other countries. The mutton is also exquisite, when well fed, and of the proper age; but it must be confessed, that, except in a part of the eastern half of this country, it is very often brought to market too young, and indifferently fed; to the injury of both the farmer and the consumer. The lamb is universally fine, but is most excellent in the states of New-Hampshire and Vermont; and particularly in the parts of these states which border on Connecticut river. A great discouragement to the raising of sheep exists in a kind of enclosure, which is extensive, the stone wall: over this wall sheep pass with great ease, and cannot, without much difficulty and labor, be prevented from intruding into all the parts of a farm, wherever this kind of fence is in use. This evil, which is not a small one, will, however, be probably removed by increasing the new breed of sheep, called the Otter breed. These sheep, which, it is said, began in an extraordinary manner at Mendon, in Massachusetts, (of which a sufficiently correct account to be inserted here has not been received) have legs somewhat resembling those of a hare; and while they are not inferior to the common breed, in flesh or wool, are unable to climb any fence; a circumstance, which, in New-England, confers on them a peculiar value. The Merino sheep have been introduced from Spain, within a few years, and the expectation is, that they will be of immense benefit to the manufactures of our country. The wool of the New-England sheep, is of a good staple, and may be improved, (as it often has been by attentive farmers) to a high, but indefinite degree. The best wool, and the best mutton also, are furnished by short and sweet pastures, and in dry seasons.

The veal of New-England is very rich and fine when well fed, as it is to a great extent.

Butter and cheese, in this country, are made in vast quantities, and of various goodness. The butter is very generally excellent, but is still very commonly rendered sensibly worse in the firkin, by the imperfect manner in which it is prepared. A great quantity of ordinary cheese is shipped yearly, to the disadvantage of both the maker and the merchant. There is also a great quantity of cheese of a superior quality made throughout the country. The dairies in

Pomfret and Brooklyn, and a few of the neighboring towns in the eastern part of Connecticut, and the western parts of Rhode-Island, are of the best quality.

Forests.] Of the forests of New-England, and not improbably of the world, the white pine is the first ornament: The greatest diameter of this extraordinary tree does not exceed six feet, but its height, in some instances exceeds two hundred and sixty. This vast stem is often exactly straight, and tapering, and without a limb, to the height of more than one hundred and fifty feet. The color and form of the foliage are exquisite; and the whole crown is noble beyond any thing of this kind, and perfectly suited to the stem which it adorns. The murmurs of the wind in a grove of white pines, is one of the first poetical objects in the field of nature. This tree is of vast importance for building. The white oak of New-England is a noble and most useful tree. It is less durable than the live, or the English oak; but the early decay of ships, built of the white oak, so generally complained of, is less owing to the nature of the tree, than to the haste and carelessness of the builders. When the timber has been well selected and seasoned, ships formed of this material have come near to the age of those built of the English oak. The chesnut is also of incalculable importance as a material in the construction of buildings and for fencing. A fence composed of good rails of this tree, will endure seventy or eighty years. The chesnut is very common throughout the southern half of New-England, and is of no small value on account of the nourishment it affords to swine during their growth.

Population and Character.] New-England is the most populous part of the United States. It contained, in 1790, 1,009,522 souls, in 1800, 1,233,011, and in 1810, 1,471,973. The great body of these are landholders and cultivators of the soil. As they possess, in fee simple, the farms which they cultivate, they are naturally attached to their country; the cultivation of the soil makes them robust and healthy, and enables them to defend it.

New-England may, with propriety, be called a nursery of men, whence are annually transplanted, into other parts of the United States, thousands of its natives. Vast numbers of them, since the war, have emigrated into the northern and western parts of New-York, into Canada, Kentucky, Ohio, Georgia, Louisiana, and Alabama; and indeed into every state, and every town of note in the union.

The inhabitants of New-England are almost universally of English descent; and it is owing to this circumstance, and to the great and general attention that has been paid to education, that the English language has been preserved among them so free from corruption.

The New-Englanders are generally tall, stout, and well built. Their education, laws and situation, serve to inspire them with high notions of liberty. Their jealousy is awakened at the first motion towards an invasion of their rights. A chief foundation of freedom in the New-England states, is a law by which intestate

estates descend to all the children, or other heirs, in equal proportions. In consequence of these laws, the people of New-England enjoy an equality of condition unknown in any other part of the world; And it is in this way that the people have preserved that happy mediocrity among themselves, which, by inducing economy and industry, removes from them temptations to luxury, and forms them to habits of sobriety and temperance. At the same time, their industry and frugality exempt them from want, and from the necessity of submitting to any encroachments on their liberties.

In New-England, learning is more generally diffused among all ranks of people, than in any other part of the globe; a fact arising from the excellent establishment of schools in every town.

In these schools which are generally supported by a public tax, and under the direction of a school committee, are taught the elements of reading, writing, arithmetic, geography, &c.

A very valuable source of information to the people, is the newspapers, of which more than 100,000 are printed every week in New-England, and circulated in every town and village in the country. In 1775, there were only 34 newspaper establishments in the British colonies, which now compose the United States; in 1800, they had increased to upwards of 150; and in 1811, to 360, which issue, annually, at a moderate calculation, above twenty two millions of newspapers, being more than are published in the United kingdoms of Great-Britain and Ireland. There are at this time above 400 printing-offices in the United States, employed in the printing of newspapers, books, &c.*

A person of mature age, who cannot both read and write, is rarely to be found. By means of this general establishment of schools, the extensive circulation of newspapers and books, and the consequent diffusion of learning, every township throughout the country is furnished with men capable of conducting the affairs of their town with judgment and discretion: These men are the channels of political information to the lower classes of people if such classes, may be said to exist in New-England, where every man thinks himself at least as good as his neighbor. The people, from their childhood, form habits of canvassing public affairs, and commence politicians. This naturally leads them to be very inquisitive. It is with knowledge as with riches, the more a man has, the more he wishes to obtain; his desire has no bound. This desire after knowledge, in a greater or less degree, prevails throughout all classes of people in New-England; and from their various modes of expressing it, some of which are blunt and familiar, bordering on impertinence, strangers have been induced to mention *impertinent inquisitiveness* as a distinguishing characteristic of New-England people. But this inquisitiveness is rarely troublesome, and generally pleasing. The common people in New-England are outdone by no common people in the world, in civility to strangers.

Before the late war, which introduced into New-England a flood of corruptions, together with many improvements, the Sabbath was

* For a very particular account of the progress of printing in America, and of the branches of manufacture connected with it, see Thomas's "*History of Printing*," 2 vols. 8vo. published in 1810.

observed with great strictness ; no unnecessary travelling, no secular business, no visiting, no diversions were permitted on that sacred day. The people considered it as consecrated to divine worship, and were generally punctual and serious in their attendance upon it. Their laws were strict in guarding the Sabbath against every innovation. The supposed severity with which these laws were composed and executed, together with some other traits in their religious character, have acquired for the New-Englanders the name of a superstitious, bigoted people. But all persons are called superstitious by those who are less conscientious, and less disposed to regard religion with reverence, than themselves. Since the revolutionary war, the character of the people, in respect to the observance of religious institutions, has changed much for the worse.

There is one characteristic in the religious character of this people, which we must not omit to mention ; and that is, the custom of annually celebrating fasts and thanksgivings. In the spring, the governors of the several New-England states* issue their proclamations, appointing a day to be religiously observed in fasting, humiliation and prayer, throughout their respective states ; in which the predominating vices, that particularly call for humiliation, are enumerated. In autumn, after harvest, that gladsome era in the husbandman's life, the governors again issue their proclamations, appointing a day of public thanksgiving, enumerating the public blessings received in the course of the year.

This pious custom originated with their venerable ancestors, the first settlers of New-England ; and has been handed down through the successive generations of their posterity. A custom so rational, and so happily calculated to cherish in the minds of the people, a sense of their dependence on the GREAT BENEFCTOR of the world for all their blessings, and gratitude to him for them, it is hoped will ever be religiously preserved.

The people of New England generally obtain their estates by hard and persevering labor : They of course know their value, and are frugal. Yet in no country do the indigent and unfortunate fare better. Their laws oblige every town to provide a competent maintenance for their poor, and the necessitous stranger is protected and relieved by their humane institutions. It may in truth be said, that in no part of the world are the people happier, better furnished with the necessities and conveniences of life, or more independent, than the farmers in New-England. As the great body of the people are hardy, independent freeholders, their manners are, as they ought to be, congenial to their employment, plain, simple, and manly. Strangers are received and entertained among them with a great deal of artless sincerity, and friendly, plain hospitality. Their children, to whose education particular attention is paid, early imbibe the manners and habits of those around them ; and the stranger, with pleasure, notices the honest and decent respect that is paid him by the youth, as he passes through the country.

* The practice here mentioned has been introduced into several of the middle, southern and western states ; and we hope will e'er long become general and national, and serve to generate and diffuse harmony and good feeling throughout our country.

As the people by representation, make their own laws and appoint their own officers, they cannot be oppressed ; and, living under governments which have few lucrative places, they have few motives to bribery, corrupt canvassings, or intrigue. Real abilities and a moral character unblemished, are the qualifications requisite in the view of most people, for officers of public trust. The expression of a wish to be promoted, was, and is still in some parts of New-England, the direct way to disappointment.

The inhabitants are generally fond of the arts and sciences, and have cultivated them with great success. Their colleges have flourished. The illustrious characters they have produced, who have distinguished themselves in politics, law, divinity, mathematics, and philosophy, natural and civil history, and in the fine arts, particularly in poetry and painting, evince the truth of these observations.

Many of the women in New-England are handsome. They generally have fair, fresh, and healthful countenances, mingled with much female softness and delicacy. Those who have had the advantages of a good education, and they are numerous, are genteel, easy, and agreeable in their manners, and are sprightly and sensible in conversation. They are early taught to manage domestic concerns with neatness and economy. Ladies of the first distinction and fortune, make it a part of their daily business to superintend the affairs of the family. Employment at the needle, in cookery, and at the spinning wheel, with them is honourable. Idleness, even in those of independent fortunes, is universally disreputable. The women in country towns manufacture the greater part of the clothing of their families. Their linen and woollen cloths are strong and decent. Their butter and cheese is not inferior to any in the world.

Among the amusements of the people of New-England is dancing, of which the young people of both sexes are extremely fond. Gaming is practised by none but those who cannot, or rather will not find a reputable employment. The gamester, the horse-jockey and the knave, are equally despised, and their company is avoided by all who would sustain fair and irreproachable characters.

Athletic and healthy diversions are universally practised in the country, and some of them in the most populous places, and by people of almost all ranks.

History.] New-England owes its first settlement to religious persecution. Soon after the commencement of the reformation in England, which was not until the year 1534, the Protestants were divided into two parties ; one the followers of Luther, and the other of Calvin. The former had chosen gradually, and almost imperceptibly, to recede from the church of Rome ; while the latter, more zealous, and convinced of the importance of a thorough reformation, and at the same time possessing much firmness and high notions of religious liberty, were for effecting a thorough change at once. Their consequent endeavors to expunge from the church all the inventions which had been brought into it since

the days of the apostles, and to introduce the "Scripture purity," derived for them the name of PURITANS. From these the inhabitants of New-England descended.

VERMONT.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT, BOUNDARIES, DIVISIONS, NAME, HISTORICAL EPOCHS, RELIGION, GOVERNMENT, POPULATION, MILITIA, REVENUE, CHARACTER, LITERATURE, TOWNS, MANUFACTURES, BANK, COMMERCE.

Extent.] VERMONT lies between lat. 42, 44 and 45° N. and between lon. 71, 33, and 73. 26, W. The whole north end is on the parallel of 45°. Its mean length is 157½ miles. Its breadth on the Canada line 90, and on the Massachusetts 40. The average breadth is 65; the number of square miles is 10,237 and of acres, 6,552,000.

Boundaries.] N. by Lower Canada; E. by Connecticut river, which divides it from New-Hampshire; S. by Massachusetts; W. by New-York and the deepest channel of Poultney river, East bay, and lake Champlain.

Divisions.] Vermont is divided into 12 counties, and 246 towns. The counties are arranged as follows beginning from the S. E.

		Counties.	Towns.	Population.		Chieftowns.	sq. miles
				1800	1810		in each co.
East.	{	Windham	23	23,581	26,760	Westminster	
						Brattleborough	786
						Newfane	
						Windsor	898
North.	{	Windsor	23	26,969	34,877	Woodstock	
						Chelsea	
						Newbury	
						Danville	771
West.	{	Orange	18	18,239	22,085	Peacham	
						Guildhall	685
						Irasburg	392
						St. Albans	729
North.	{	Caledonia	18	9,332	14,966	North Hero	82
						Burlington	804
						Montpelier	1,877
						Middlebury	715
West.	{	Essex	19	1,479	3,087	Vergennes	
						Rutland	658
						Bennington	611
						Manchester	
North.	{	Orleans	23	1,439	5,838		
West.	{	Franklin	19	7,573	16,427		
North.	{	Grand Isle	5	2,489	3,445		
West.	{	Chittenden	16	11,490	14,684		
North.	{	Washington*	15		10,372		
West.	{	Addison	23	13,417	19,993		
North.	{	Rutland	27	23,834	29,487		
West.	{	Bennington	18	14,607	15,893		
Total		12	246	154,449	217,913		

Name.] Vermont is merely *verd mont*, the French for green mountain. It is said that Ethan Allen conferred the name on the mountains, and thence it was transferred to the territory.

Historical Epochs.] Vermont was originally possessed by the Coos Indians, and other tribes of Moheakanneews. Massachusetts first claimed the territory. In 1718 that government gave 49,000 acres, in the S. E. part of the state, to Connecticut, for some lands which had been granted by Massachusetts within the limits of the Connecticut charter. In 1725 a fort was erected at Brattleborough. From 1741 till 1764, Vermont was considered as belonging to the jurisdiction of New-Hampshire, and, in 1760, a number of towns were settled. In 1764 parliament annexed Vermont to New-York. The government of that province claimed the right of soil, and disposed of lands which had been granted by New-Hampshire, and settled by the grantees. This occasioned a long and violent dispute between the settlers and the claimants under New-York. In 1790, New-York, for 30,000 dollars, withdrew its claims; and, in 1791, Vermont was admitted a member of the union. The Green Mountain Boys were some of the best troops in the revolutionary war.*

* This county was formed in 1810, from parts of the counties of Chittenden, Caledonia and Orange. It was originally named *Jefferson*.

† The history of this state has been well written by Samuel Williams, L. L. D. published in 1794, and a new edition in 1810.

Religion.] In 1812 there were 89 Congregational churches in Vermont, 2 Presbyterian, 23 Baptist, 2 Episcopalian, 1 Universalist, and 1 Friends. In 1818, there were 75 Congregational ministers, and many vacant churches, and about 120 Baptist Congregations. Of the towns in Vermont 114 were granted by New-Hampshire. In each of these one right of land, containing usually 330 acres, was reserved for the first settled minister; one right as a glebe for the church of England; one to the society for propagating the gospel; and one for the support of a school. In the other towns granted by Vermont there was one right reserved for a university; one for a town school; one for a county grammar school; and one for the support of the gospel.

The Congregational ministers meet annually in convention, in September; and with such other persons, as choose to pay one dollar a year, constitute *The Vermont Missionary Society*, a useful and active body in propagating the gospel.

Within the last fifteen years, religion in its vital and practical influence, has spread extensively, and is still spreading, in this state.

Government.] The inhabitants of Vermont, by their representatives in convention, at Windsor, on the 25th of December, 1777, declared that the territory called Vermont, was, and of right ought to be, a free and independent state; and for the purpose of maintaining regular government in the same, they made a solemn declaration of their rights, and ratified a constitution, of which the following is an abstract.

Their declaration, which makes a part of their constitution, asserts that all men are born equally free—with equal rights, and ought to enjoy liberty of conscience—freedom of the press—trial by jury—power to form new states in vacant countries, and to regulate their own internal police—that all elections ought to be free—that all power is originally in the people—that government ought to be instituted for the common benefit of the community—and that the community have a right to reform or abolish government—that every member of society hath a right to protection of life, liberty, and property, and in return is bound to contribute his proportion of the expense of that protection, and yield his personal service when necessary—that he shall not be obliged to give evidence against himself—that the people have a right to bear arms; but no standing armies shall be maintained in time of peace—that the people have a right to hold themselves, their houses, papers, and possessions free from search or seizure; and therefore warrants, without oaths first made affording sufficient foundation for them, are contrary to that right, and ought not to be granted—that no person shall be liable to be transported out of this state for trial for any offence committed within this state, &c.

By the frame of government, the supreme legislative power is vested in a house of representatives of the freemen of the state of Vermont, to be chosen annually by the freemen on the first Tuesday in September, and to meet the second Thursday of the succeed-

ing October : this body is vested with all the powers necessary for the legislature of a free state—two thirds of the whole number of representatives elected make a quorum.

Each inhabited town throughout the state has a right to send one representative to the assembly.

The supreme executive power is vested in a governor, lieutenant governor, and twelve counsellors, to be chosen annually in the same manner, and vested with the same powers, as in Connecticut.

Every person of the age of 21 years, who has resided in the state one whole year next before the election of representatives, and is of a quiet peaceable behaviour, and will bind himself by his oath to do what he shall in conscience judge to be most conducive to the best good of the state, shall be entitled to all the privileges of a freeman of this state.

Each member of the house of representatives, before he takes his seat must declare his belief in one God—in future rewards and punishments, and in the divinity of the scriptures of the Old and New Testaments, and must profess the Protestant religion.

Courts of justice are to be established in every county throughout this state.

The supreme court, and the several courts of common pleas of this state, besides the powers usually exercised by such courts, have the powers of a court of chancery, so far as relates to perpetuating testimony, obtaining evidence from places not within the state, and the care of the persons and estates of those who are *non compos mentis*, &c. All prosecutions are to be commenced in the name and by the authority of the freemen of the state of Vermont. The legislature are to regulate entails so as to prevent perpetuities.

All field and staff officers, and commissioned officers of the army, and all general officers of the militia, shall be chosen by the general assembly, and be commissioned by the governor.

Every seventh year, beginning with the year 1785, thirteen persons (none of whom are to be of the council or assembly) shall be chosen by the freemen, and to be called ‘the council of censors,’ whose duty it shall be, to inquire whether the constitution has been preserved inviolate in every part—whether the legislative and executive powers have been properly exercised—taxes justly laid and collected—the public monies rightly disposed of—and the laws duly executed. For these purposes they shall have power to send for persons, papers, &c.—to pass public censures—to order impeachments, and to recommend the repeals of all laws enacted contrary to the principles of the constitution. They are to be vested with these powers for one year only, after the day of their election.

The council of censors, when necessary, may call a convention, to meet two years after their sitting, to alter the constitution ; the proposed alterations to be published at least six months before the election of delegates to such convention.

The statutes of Vermont, and the common law of England, (so far as it is applicable) together with such English statutes explanatory of it as were passed before 1760, make up the laws of Vermont.

<i>Population.</i>] The number of inhabitants was in the year		
1790	1800	1810
85,268 whites	153,908 whites	217,145 whites
271 blacks	557 blacks	750 blacks
<hr/> 85,589	<hr/> 154,465	<hr/> 217,895

The items of the census of 1810 were as follows :

	males.	females.	total.
Under 16 years of age	56,429	53,962	110,391
Between 16 and 45	40,469	41,775	82,244
45 and upwards	13,053	11,457	24,510
<hr/> Total	<hr/> 109,951	<hr/> 107,194	<hr/> 217,145

The increase, in the first 10 years, was 68,860 ; and in the second 10, 63,446. At the first census Vermont was the 11th state in point of population ; at the second, the 13th ; and, at the third, the 13th.

In 1813, the whole number of militia in this state was 20,273, of which were

Infantry (rank and file)	15,543
Artillery (do.)	303
Cavalry (do.)	1,035

By the constitution of the state the governor is captain general of all the forces of the state ; and the lieutenant governor, lieutenant general. Subordinate to these is one major general to each of the four divisions, and one brigadier general to each of the 8 brigades, chosen by the legislature. The bravery of the Green Mountain Boys is proverbial.

Revenue.] The revenue of this state arises from rates and taxes granted from time to time by the legislature, and assessed in proportion to the polls and rateable estate. The law determines what is taxable estate, and fixes the value at which it shall be taxed. All persons liable to be taxed are required to deliver to the listers, annually in July, a correct list of all their taxable property.

Character.] The inhabitants of this state are an assemblage of people from various places, of different sentiments, manners, and habits ; they have not lived together long enough to assimilate and form a general character. Assemble together, in imagination, a number of individuals of different nations ; consider them as living together amicably, and assisting each other through the toils and difficulties of life, and yet rigorously opposed in particular religious and political tenets ; jealous of their rulers, and tenacious of their liberties, (dispositions which originate naturally from the dread of experienced oppression and the habit of living under a free government) and you have a pretty just idea of the character of the

people of Vermont. Indolence is never a characteristic feature of the settlers of a new country. Emigrants in general are active and industrious. The opposite characters have neither spirit nor inclination to quit their native spot. The inference is, that Vermont is peopled with an active, industrious, hardy, frugal race; as is really the case. And as it is a maxim that the inhabitants of all new countries grow virtuous before they degenerate, it will most probably be so in Vermont.

The inhabitants of the several towns seem generally disposed, as soon as they are able, to settle a minister of the gospel among them. Missionaries from Connecticut and Massachusetts, to the new and scattered settlements, have been generally well received and treated with grateful respect and kindness.

Literature.] Vermont has two colleges. One is at Burlington established in 1791, and has been liberally patronized by the state, and styled a university, but as yet has had few students. It is gradually rising in influence and usefulness under the guidance and instruction of good officers.

The other is at Middlebury, supported chiefly by private bounty. This college, is the youngest institution of this kind in New-England, was established in the year 1800. The Faculty consists of a president; a professor of Law; a professor of Mathematics and Natural Philosophy; a professor of the Languages; and two tutors. The college library contains about 1200 well chosen volumes. Besides this, there is a library of about 200 volumes belonging to a society of the students. The philosophical apparatus is new and valuable.

The original college edifice is small, containing only 18 chambers for students, besides a chapel and lecture-room. A large stone edifice, containing between 50 and 60 apartments for the scholars, and a commodious building containing 16 rooms for the accommodation of the professor and students of law, have since been erected.

The whole number of young gentlemen who had received the honors of this Institution in 1818 was 260, of whom 55 were at this time in the gospel ministry. The present number of undergraduates is 108.

One or more academies are established in most of the counties in the state; and grammar schools in every county. The land reserved for a university amounts to about 33,000 acres, and for grammar schools about the same. Common schools are established in every town. The land reserved for these exceeds 80,000 acres. In no country is common schooling more attended to. A family of children, who could not read, write, and understand common arithmetic, could probably not be found. The provision, in this respect, is certainly worthy of imitation. Two medical societies have been established in this state, one in 1784, and one in 1794.

Towns.] Bennington, one of the oldest towns in Vermont, was settled in 1764. It is in the S. W. part of the state. The public edifices are a Congregational church, and academy, a court house, and a jail. Here are cotton, woollen and marble manufactories, and 2 furnaces. The population in 1810, was 2,524. Mount St. An-

thony is a high conical mountain in the southern part of the town. The village is planted on a rich tract of land, extending from this mountain northward. On the east side of the mountain is a remarkable cavern, consisting of several apartments from 5 to 50 feet high ; the whole extending 45 yards horizontally. Near this village was fought the famous battle of August 16, 1777, in which Gen. Stark led to conflict and victory, over a portion of the British, 800 American militia.

Windsor is a beautiful town, about 45 miles from the Massachusetts line, on the banks of the Connecticut. The houses are very neat and handsome, and the trade is flourishing. The bridge thrown here across the Connecticut is one of the handsomest on the river. Population in 1790, 1,542 ; in 1800 2,211 ; and in 1810, 2,757. It has a Congregational, a Baptist, and, an Episcopal church, a court house, penitentiary, and a respectable and flourishing academy for young ladies. Ascutney is a fine summit on the S. W. part of the town, 2,031 feet above the sea, and 1,732 above the river.

Rutland lies upon Otter creek, in the western part of the state, 16 miles east of the south end of lake Champlain. It has a Congregational church, a court house, and an academy. Population in 1790, 1,407 ; in 1800, 2,125 ; and in 1810, 2,379.

Middlebury is a pleasant village on the east bank of Otter creek, 20 miles from its mouth, 11 miles above Vergennes ; 34 south of Burlington ; 32 north of Rutland. The population, in 1810, was 2,138. The increase during the ten preceding years was 875. Of the above number, about 1200 are compactly settled at a place called Middlebury Falls ; where are several very eligible spots for mills, and other hydraulic machines. Here considerable attention is paid to manufactures of different kinds. There are, within a few rods of each other, three grist mills, three saw mills ; five carding machines ; a forge ; a gin distillery ; a marble factory, several cotton, woollen and nail factories. An extensive quarry of marble was discovered in 1804, on the bank of the creek, and near the centre of the village. The stone is deposited in irregular strata, of different thicknesses, and all inclined more or less to the northwest. The marble is of two kinds, a pure white ; and a sky-coloured marble. They are both of a fine grain, solid, compact, and susceptible of an excellent polish. A mill of a very peculiar and very ingenious construction (the invention of Dr. E. W. Judd, one of the proprietors of the marble quarry) was erected in 1806, for the purpose of sawing the stone into slabs. The number of saws is 65, which are kept in almost constant operation. In the years 1809 and 1810, forty thousand feet of marble were sawn in this single mill, and the sales of tombstones, tables, sideboards, &c. in the same period of time, amounted to about \$11,000.

The public buildings in the village of Middlebury, are, a handsome Congregational meeting-house, erected in 1808, a court house ; a jail ; an academy for both sexes, and the college edifices. In the grammar school are usually between 30 and 40 young men, whose attention is directed principally to the acquisition of such knowledge as is requisite for their admission into the College. The

inhabitants deserve honorable mention for their sobriety and hospitality, and for the spirit and liberality with which they have founded and maintained their college.

Burlington stands on a most beautiful harbor on lake Champlain, on elevated ground, commanding a noble view of the lake and the adjacent country. The prospect from the top of the college is surpassed by none in New-England, except that from Mount Holyoke, and that from the dome of the state-house in Boston. Population in 1810, 1,690. Here are two handsome places of worship for Congregationalists, one of which is of brick, a court-house, jail and academy, and the spacious college edifice 160 by 75 feet, and four stories high.* Within the limits of the township, a mile N. E. of the village, are manufacturing establishments and mills, on Onion river falls. This is the only port of entry in Vermont, and carries on considerable trade on lake Champlain. About 20 vessels navigate this lake, owned chiefly in this place.

Montpelier, a little north of the centre of the state, on Onion river, 38 miles S. E. from Burlington, is the seat of government, and has a state-house, court-house, jail, academy, a Congregational house of worship, and a number of manufacturing establishments, and 1,877 inhabitants.

Manufactures.] The amount of manufactures in this state, almost exclusively from its own productions, according to the returns made to the Secretary of State, with the last census, was \$4,325,824, beside the common home commodities, to a large amount, among which is the article of maple sugar. It has been estimated, by a competent judge, that the average quantity made for every family back of Connecticut river, is 200lb. a year. One man, with but ordinary advantages, in one month, made 550 lbs. of a quality equal to imported brown sugar. In some parts of the state, the inhabitants are beginning to line the roads with maple trees; and it would certainly be a wise measure if this practice should become general throughout the other states. Orchards of these trees planted on sloping hills, so as to render it easy to collect the juice, might be attended with peculiar advantages to the owners. Little pains however are taken to plant maple orchards, or even to preserve the trees where they grow spontaneously. Most families manufacture, in their houses, the greater part of their common clothing, from flax and wool raised on their own farms, of an excellent quality.

Bank.] There is but one bank in this state, called the Vermont State Bank, established in 1806, wholly the property of the state. It consists of four branches, at Burlington, Middlebury, Woodstock, and Westminster. It is under the management of 13 directors appointed annually by the legislature.

Commerce.] The inhabitants in the S. E. part of the state trade with Hartford and Boston; in the middle with Boston; and in the

* The funds of the University consist chiefly of 40,000 acres of land, yielding at present, a rent of somewhat less than \$1,500.

N. E. with Portland ; in the S. W. with New-York ; and in the N. W. with New-York and Montreal. This last was especially the case during the interruptions of American commerce. Burlington, on lake Champlain, is the only port of entry. The exports in 1810 amounted to 432,631 dollars. In 1817, \$913,201. They consist chiefly of lumber, horses, beef, pork, butter, cheese, wheat, flour, iron, nails, pot and pearl ashes. The imports cannot be fairly estimated, as they are principally sent through other states.

CHAPTER II.

NATURAL GEOGRAPHY.

CLIMATE, FACE OF THE COUNTRY, MOUNTAINS, SOIL AND PRODUCTIONS, RIVERS, LAKES, SPRINGS, FORESTS, BOTANY, MINERALOGY, NATURAL CURIOSITIES.

Climate.] The winter is cold but (the sky is usually) serene and the weather uniform. Snow lies commonly about four months, from December to March ; and, on the highlands, falls four feet deep. Vegetation, in the spring, is very rapid. The climate is generally healthy ; but some of the towns west of the mountains are frequently afflicted with the fever and ague, and those on the lake, with distressing bilious fevers.

Face of the Country.] Vermont is generally mountainous, and nowhere a plain except near the Canada line. Its mountains are all covered with forests ; on the east side with birch, beech, maple, ash, elm, and butternut ; and on the west with evergreens.

From Massachusetts line more than 80 miles to the north, the western verge of the Green Mountains, is from twenty to thirty miles on a straight line from Connecticut river. Almost the whole of this country is formed with mountains ranging parallel with the course of Connecticut river. The west range, which continues unbroken with few exceptions, nearly through the state, is, in general, much the highest. On the east they decrease gradually to the meadows, and sometimes to the edge of the river. These last are intersected by the rivers which run into the Connecticut, in a direction nearly from the northwest to the southeast. The vallies, or rather glens, which separate these ranges, are generally, narrow and mostly covered with hemlock, fir, and spruce.

About 100 miles from Massachusetts line, between the waters of White river and Winouski or Onion river, there passes off to the northeast, a range of high lands, frequently rising into very elevated mountains. This runs parallel with Connecticut river ; the height being from ten to fifteen miles distant as far as the north line of the

state. The western range continues northward, sometimes falling below the clouds, sometimes rising above them. Between these two ranges, extending from twenty to thirty miles in breadth, is a beautiful champaign country, second in fertility, perhaps to none in Vermont.

On the west of the Green Mountain, there is one, and in some places, two or three ranges of small mountains, though frequently interrupted. These extend as far as the north line of the county of Rutland: From that, to the latitude of forty-five degrees, one hundred miles in length, and from twenty to thirty miles in breadth, between lake Champlain and the Green Mountain, is a fine tract of land, abounding with only moderate hills. Through this whole extent, few tracts can be found unfit for cultivation.

Mountains.] The only range of mountains in the state is the Green mountains. They cross the south line in the western part of the state, and run north as far as Roxbury, where they divide. The highest chain continues north through Chittenden and Franklin counties to lat. 45°. The three highest summits are Killington Peak, Camel's Rump, in Huntington, and the mountain of Mansfield, in Stirling. This part of the range is pierced by the large rivers falling into lake Champlain. The eastern range winds between the sources of these rivers, and of those that fall into the Connecticut, through Roxbury, Williamstown, Washington, Orange, &c. and is the height of land between that river and the lake. The principal range from the north to the south line of the state is generally about 15 miles wide. The tops of the mountain are chiefly rocky, and covered with moss. The trees there are small, but very aged, and are pine, spruce, hemlock, and fir, intermixed with a few shrubs, and bushes. The spruce and hemlock trees on the top are often not more than 2 or 3 feet high; and their branches are so interwoven as to render the thicket impenetrable. The sides of the mountains are generally irregular and rough, particularly on the south side, which is often precipitous. Killington Peak, in Sherburne, is 3184 feet above the level of lake Champlain, at the mouth of Otter Creek, and 3454 feet above the ocean. Grand Monadnoc, in the N. E. corner of the state, is about as high as Ascutney.

Soil and Productions.] The soil is very fertile and fitted for all the purposes of agriculture. It is generally deep, and of a dark color; rich, moist, warm, and loamy. Winter wheat is extensively cultivated on the west side of the mountains; but it does not thrive so well on the east side. Summer wheat, barley, oats, peas, and flax, flourish in all parts of the state. Indian corn thrives best in the intervals, but is raised in abundance every where. The pastures of Vermont are excellent, and the beef and mutton are very fine.

Rivers.] The Connecticut is the eastern boundary. All the other rivers have their sources in the Green mountains. About 35 have an easterly direction, and fall into the Connecticut. Four or five small ones run northerly into lake Memphremagog. About 25 run westerly into lake Champlain, and two or three pursue the same direction to the Hudson.

Michiscoui rises in Belvidere, runs N. N. E. into Canada, where it proceeds W. some distance, and re-entering the state at Richford, pursues the same course to Michiscoui bay. It is 75 miles long, and is navigable to the falls in Swanton, 7 miles.

The Lamoille proceeds from a pond in Glover, and runs N. of W. about 75 miles, to lake Champlain; which it enters in the north part of Colchester. It receives 14 tributaries, and is a fine, smooth, and pleasant stream, running through a rich, level, and fertile country.

Onion river, formerly called *French* and *Winooski* river, rises in Cabot, 14 miles W. of the Connecticut, and runs S. W. 20 miles, and then N. W. 60, to lake Champlain. It has 14 tributaries, and is navigable 5 miles. Its course is through a mountainous, but very fertile country. In Colchester, 6 miles from its mouth, the channel for 15 rods is through solid rock, 50 feet wide and 70 deep. In Waterbury, 30 miles higher, there is a similar passage, but the channel is much narrower, and a huge mass has rolled down from the ledge, and formed a complete natural bridge. The mouth of Onion river is 5 miles south of the Lamoille, and 3 north of Burlington bay.

Otter Creek rises in Peru, 30 feet only from the source of the Battenkill, which takes an opposite direction; and, running W. of N. 90 miles, falls into the lake at Ferrisburg, receiving in its course 15 tributaries. There are useful falls at Rutland, Pitsford, Middlebury, and Vergennes. To the last, vessels of considerable burden may come up 6 miles from the mouth. Between the falls the current is very slow, the water deep, and navigable for the largest boats.

The Wantastitquek, or West river, rises in Peru, 3 miles from the source of Otter Creek, and runs S. E. to the Connecticut, at Brattleborough, 37 miles. It receives 7 tributaries, is 15 rods wide at its mouth, and 12 feet deep.

White river rises in Kingston, runs S. E. to the Connecticut, in Hartford, 4 miles S. of Dartmouth college. It receives 7 tributaries, abounds with falls and rapids, and is 18 rods wide, and 10 feet deep, at its mouth.

The Poosoomsuc issues from a pond in Westmore, runs S. 40 miles, and falls into the Connecticut, at Barnet, where it is 12 rods wide, and 10 feet deep.

The Battenkill heads in Peru, runs S. W. 45 miles, and falls into the Hudson. White Creek is its only considerable tributary.

Deerfield river rises in Stratford, and runs south into Massachusetts, and meets the Connecticut at Deerfield.

Lakes.] Lake Champlain has been described. It contains about 600 square miles,* more than two-thirds of which are in Vermont.

Lake Memphremagog lies chiefly in Lower Canada. It is 40 miles long, but only 7 or 8 miles of the south end are in this state, covering 15 square miles. Its chief tributaries in Vermont are Clyde, Barton, and Black rivers.

* Hutchins estimates its contents at 500,000 acres.

The rivers and lakes abound with various kinds of fish. Shad are taken in Connecticut river, as high as Bellow's Falls, over which they never pass. Salmon in plenty have heretofore been caught in the spring, the whole length of Connecticut river, and in most of its tributary streams; but few, however, of late years. A small species of salmon is taken in lake Champlain, the Winouski, or Onion river, La Mouille and Michiscoui, but in none of the southern rivers. Perch, pike, pickerel, maskinungas, a very large species of pickerel, pout, mullet, and a fish called the lake bass, are found in great plenty. All the streams abound with salmon-trout.

There are handsome bridges built over the Connecticut at Bellow's Falls, Windsor, and Hanover.

Springs.] Besides the numerous springs of fresh water, there are some chalybeate springs. There is a spring in Orwel, near Mount Independence, and another at Bridport, which produce the Epsom salts.

There is also a curious mineral spring on some low land over against the great Ox Bow, discovered about the year 1770.

Forests.] The greatest part of the state is still in forest, and the mountains will probably continue so for ages to come.

Botany.] The forest trees of Vermont are the white, yellow, and pitch pine, larch, hemlock, white and black spruce, fir, white, red, and black maple, white and red beech, white and black ash, white, black, and red or yellow birch, white and red elm, black, white, red, and chesnut oak, white hickory, shagbark, butternut, chesnut, buttonwood, basswood or limetree, alder, hornbeam, wild cherry, sassafras, white and red cedar, white and black poplar or aspen and balsam, red and white willow and hachmatac. The esculent trees, shrubs and vines are red, yellow, and thorn plum, black, red, and choke cherry, juniper, hazlenut, black currant, wild gooseberry, whortleberry, bilberry, blueberry, chokeberry, partidgeberry, pigeonberry, barberry, mulberry, black and fox grape, black and red raspberry, standing and running blackberry, brambleberry, cranberry, bush cranberry, strawberry, dewberry, and cloudberry. The vegetables are artichoke, groundnut, long and red potatoe, wild leek, wild onion, wild oat, wild pea, wild hop and Indian cucumber. The medicinal plants are bittersweet, angelica, black and red elder, sarsaparilla, pettymorel, Solomon's seal, maidenhair, arsmart, wild rose, golden thread, mallow, marsh mallow, labelia, senna, glivers, blue flag, sweet flag, skunk cabbage, garget, blood root, pond lily, elecampane, black, and Seneca snakeroot, pleurisy root, liquaria root, dragon root, and ginseng. The poisonous plants are thorn apple or stramonium, henbane, nightshade, ivy, creeping ivy, swamp sumach, baneberry, and white hellebore. In this list ought to be added the bayberry, prickly ash, witchhazel, Indian hemp, silk grass, and common sumach.

Mineralogy.] Iron mines abound on the west side of the mountain. They are worked at Tinmouth, Shaftesbury, Rutland, Shoreham, Monkton, and Milton. Several others have been discovered. A lead mine, with a very rich ore, has been found in Sunderland.

Rich pyrites is found in Shrewsbury. In Rutland there is a fine vein of pipe clay. Marble is found in almost every town from Bennington to the Michiscoqui. In Bennington a quarry has been opened, which has peculiar fineness and beauty.

Natural Curiosities.] In the western part of Clarendon there is a remarkable cave in the S. E. side of a mountain. The entrance is a narrow passage 2 and a half feet in diameter, which makes an angle of 40° with the horizon, and is 31 and a half feet long. It opens into a spacious room, 20 feet long, 12 and a half wide, and 18 or 20 high. The roof, sides and floor are of solid rock, rough and uneven. The water is constantly percolating through the roof, and has formed numerous stalactites. At the north end of the room there is an opening 40 inches in diameter, that is the commencement of another passage. Its direction is also oblique; its length 20 feet, and its sides full of jaggs and notches. It leads down to a second room, 30 feet long, 20 high, and 20 wide. In the spring this lower room is full of water.

In Dorset, also, there is a cave in the side of a mountain. It is an excavation through a solid marble rock. The entrance is 12 feet square, through a perpendicular ledge 20 feet in height. The passage is short, making an angle of 25° with the horizon, and opens into a room 20 feet high, 25 broad, and 150 long, the floor of which has the same angle with the passage. At the farther end 2 low, narrow passages run off to an unknown distance into the mountain. There is another cave at Danby equally remarkable.

A remarkable change was made in Poultney river, in the year 1783. This river empties into East Bay, which communicates with lake Champlain, at Whitehall, (formerly Skeensborough.) A little above its conjunction with East Bay, a ridge of land crosses in a northerly direction; the river running a northwesterly course, on meeting the ridge, turned suddenly to the northeast, and, keeping that course about half a mile, then turning westerly, passed the ridge over a very high ledge of rocks. For several years the river had gradually worn away the bank on the side of the ridge just in the bend where the river turned to the northeast. In May, 1783 during a remarkable freshet, the river, at this place broke the ridge, and, meeting no rock, it wore a channel sixty feet deep nearly to a level with the stream below, leaving the former channel and falls dry. The channel of the river, for a considerable way above this place, was lowered to a great depth, so that the low meadow lands, along the river, which before were overflowed with every freshet, have now become a dry plain. The earth thrown out of this prodigious chasm, filled East Bay, for several miles, where it had been navigable for vessels of forty tons burden, so that a canoe could with difficulty pass at low water, and even obstructed the navigation at Fiddler's Elbow, a narrow place near the entrance from Whitehall to South Bay. These obstructions (both at the Narrows and in East Bay) have since been mostly removed by the force of the current.

Connecticut river has lowered its channel from 80 to 100 feet perpendicular, through the whole length of this state. From the various steps, ranged one above another, and which must, at various times, have formed the bank of the river, the alterations appear not to have been made at once, nor in continuance through the whole length of the river, but at remote and unequal periods. These changes appear, in some instances, to have been occasioned by the river suddenly shifting its channel, as was the case of the river at Fairhaven, mentioned above; in some instances, by a gradual attrition of the rocks, which, in some remote period of antiquity, formed numerous cataracts. On the plain where Dartmouth college stands, which is nearly 100 feet above the present bed of the river, logs of timber have been dug up at the depth of 25 and 30 feet below the surface. This is about the depth of the river at present in the highest freshets, and of what is called the made or meadow lands on the river, and both are formed in the same manner with alternate strata of clay, sand and gravel. Some of the earth which has in a lapse of time been scooped out of the immense chasm, has doubtless been carried into the sea; while large quantities have served to fill the numerous lakes, of larger or smaller dimensions, through which the river once made its way.

In Burlington, on the Winouski, a little above the chasm worn in the rocks, as mentioned above, is a large bow of interval land. On a part of this which now lies considerably higher than the river, a well was dug by the owner, in the summer of 1786. Through the whole depth of the well, which was fifty feet, the earth was composed of a fine river sand: Twenty-five feet below the surface, were dug up a large number of frogs in a torpid state, which were found bedded in the earth like small stones. After being exposed a short time to the air, they discovered signs of life, and soon were able to leap about. They did not, however, continue long, but presently became languid, and died. This was probably owing to their being at once exposed to the burning heat of the summer's sun, without water. They might unquestionably have recovered the usual vigor of the species, had more attention been paid to them. These frogs must have been buried in the spot where they were found, by some extraordinary inundation of the river, while in that state of torpor in which they always pass the winter in those climates, and have continued in that situation for centuries. Forty-nine feet below the surface, in the same well was found a log of timber.

In the town of Thetford is a remarkable pond of about 9 acres. It lies on a flat, which descends on every side except on the north. It is fed by no stream, nor is there any stream issuing from it. The water is 70 or 80 feet deep, and in summer falls two or three feet. It contains abundance of fish, particularly perch, barrels of which were formerly caught by the inhabitants in a season. It is but about 4 rods from the west bank of Connecticut river, which in

this place is nearly 150 feet high. The road passes between the pond and the river's bank.

In the town of Glover, in the northern part of this state was a pond about 3 miles long and 1 wide. From this pond issued toward the south a considerable branch of Lamoille river, which empties into lake Champlain. A short distance north of this, was a smaller pond, from which issued a branch of Barton river, which empties into lake Memphremagog. On the 6th of June, 1810, a number of men, from this and the neighboring towns, cut a small channel from the north end of the large pond with a view to connect it with the smaller one, and to increase a mill stream which issued from it. After digging about 4 feet from the margin of the pond through a body of gravel and earth, exceedingly hard, which had resisted the waves and pressure of the water for centuries, they came to a bed of quicksand, into which the water entered from the pond, through this new channel, and in a few moments formed a dismal gully or hole, nearly 60 feet deep, and of considerable width, presently the body of water in the pond rushed toward this outlet with such force as to push nearly half an acre of the opposing bank, with the trees all standing, with a tremendous crash, over a precipice to the north; and, in a few moments, the rushing torrent made for itself a channel from 10 to 15 rods wide, and 150 feet deep to the bed of the pond, and the whole mass of water in the pond rushed at once down the descent toward Barton river. The small pond was in an instant swallowed up and carried off in the overwhelming torrent, which, in a course of 6 or 8 miles, formed a channel of 10 or 12 rods wide, and 20 feet deep, and through the whole extent of Barton river carried off its mills and bridges and covered thousands of acres of excellent land, from 4 to 16 feet deep, with sand, wood, &c. destroying all the crops, intervals, &c. The damage was estimated at from 20,000 to 60,000 dollars. No human lives were lost.

NEW-HAMPSHIRE.

CHAPTER I.

HISTORICAL GEOGRAPHY.

EXTENT, BOUNDARIES, DIVISIONS, NAME, HISTORICAL EPOCHS, GOVERNMENT, POPULATION, MILITIA, MANNERS, LITERATURE, TOWNS, MANUFACTURES, TRADE, BANKS, CANALS, AND TURNPIKES.

Extent.] New-Hampshire lies between lat. 42 41 and 45 11 N. and between lon. 70 40 and 72 28 W. It is 168 miles long, from north to south. Its greatest breadth is 90 miles; in lat. 44° it is 55 miles, and at the northern extremity but 19. It contains 9,491 square miles, or 6,074,240 acres; about 100,000 of which are covered with water.

Boundaries.] N. by Lower Canada; E. by Maine, and the Atlantic; S. by Massachusetts; and W. by the west bank of the Connecticut; no part of that river is within the jurisdiction of Vermont. The extent of the seacoast is 18 miles.

Divisions.] This state is divided into six counties, viz.

Counties.	No. of towns. 1810.	Population. in 1810.	Chief towns.	No. of inh. 1810.
Coos	24	3,991	Lancaster	717
Grafton	35	28,462	{ Haverhill	1,105
			{ Hanover	937
Cheshire	35	40,988	{ Charleston	1,501
			{ Keene	1,646
Hillsborough	42	49,249	Amherst	1,554
			{ Exeter	1,759
Rockingham	46	50,175	{ Portsmouth	6,934
			{ Concord	2,393
			{ Dover	2,228
Strafford	31	41,595	{ Durham	1,449
Total	213	214,460		

Name.] This territory received the name of *New-Hampshire* from Capt. Mason, the original patentee. (In the earliest grant, made to Mason and Gorges in 1622, it is, however, styled *Laconia*.) In the histories of Indian wars it is also called *Captain Mason's Patent*, and *Piscataqua*, from its principal river.

History.] This tract of country was discovered in 1614, by Capt. John Smith. The first settlement was made at the mouth of the Piscataqua, on the south bank, and also 8 miles farther up at what is now Dover, in 1623. The towns governed themselves, till 1641, when they were taken under the jurisdiction of Massachusetts. In 1675, occurred the first Indian war, called Philip's war; which pervaded the whole of New-England. In September, 1679, New-Hampshire was separated from Massachusetts, and made a royal government. In 1689 occurred the second Indian war, called king William's war; in 1703, the third, called queen's Anne's war, in which the Indians were assisted by the Canadian French; in 1723, the fourth, called the Three Years' or Lovell's war; and, in 1754, the fifth and last, which terminated in 1760, in the reduction of Canada. In 1775 New-Hampshire, in common with the other states, ceased to be a royal province, and the same year a temporary constitution was formed for its government. New-Hampshire furnished, during the revolutionary war, 14,000 men, about 4000 of whom perished in battle or by sickness. The present constitution was agreed on in 1783, and went into operation in June, 1784. An insurrection took place in 1786. The insurgents assembled at Exeter and took the legislature prisoners, and held them so several hours. The citizens appearing in arms crushed it in its infancy.

Religion.] The principal denominations of Christians in this state are Congregationalists, Presbyterians, Episcopalians, Baptists, Methodists, Universalists, and Quakers. There is a small society of Sandemanians in Portsmouth, and another of Shakers at Enfield.

"The people in general throughout the state, are professors of the Christian religion, in some form or other. There is, however, a sort of wise men, who pretend to reject it; but they have not yet been able to substitute a better in its place."*

There are in this state (1819.) about 260 houses for religious worship, and 220 ordained ministers, of which 100 are Congregational, and 107 Baptist.

Government.] The executive power is vested in a governor and council. The governor is chosen by the people annually. He must be worth 500*l*. If there is no choice, the legislature fill the vacancy. The council consists of 5 persons, 2 chosen by the senate, and 3 by the representatives. The legislature are called *The General Court*. Each branch has a negative on the other. The senate consists of 12 members. A senator must be worth a freehold of 200*l*. Each town, containing 150 rateable polls, sends one representative and every addition of 300 polls entitles it to another. A representative must be worth 100*l*. The judiciary is composed of a superior court, having four judges, which makes two circuits annually through the counties; of an inferior court in each county, having four judges, and sitting four times a year; of a court of general sessions in each county, consisting of the justices of the peace,

* Belknap.

and sitting the same week with the inferior court; of a court of probate in each county, having one judge, and sitting monthly; and of justice's courts. All judges hold their offices during good behaviour.

<i>Population.]</i> The number of inhabitants was, in the year					
1749	-	-	30,000	1790	- - 141,885
1767	-	-	52,700	1800	- - 183,858
1775	-	-	82,200	1810	- - 214,460

New-Hampshire at the first census, in 1790, was the 10th state in the union, in point of population; at the second, the 11th, and at the third the 14th.

Militia.] The number of inhabitants in this state between 16 and 45 years of age, according to the last census, is 39,396. This fact will enable any one to form a pretty correct idea of the military strength of this state. The proportion of the actual militia to the whole number of males between 16 and 45, in New-England, is about as 10 to 19. In 1818 the number of the militia was 25,794. The militia of New-Hampshire is organized in the same manner as in Massachusetts.

Manners and Customs.] See New-England.

Literature.] The college of New-Hampshire is in Hanover. It was called Dartmouth college from William, earl of Dartmouth, one of its principal benefactors; and stands in a plain, about half a mile east of Connecticut river. The charter was procured by Rev. Dr. Wheelock, its first president, in 1769. The funds of the college consist chiefly of lands amounting to about 80,000 acres. The revenue of the college arising from this source amounts, at present, to about 1600 dollars a year. This, with the tuition, makes an income of about 3700 dollars. The officers of the college are a president, a professor of divinity and moral philosophy, a professor of mathematics and natural philosophy, a professor of languages, and two tutors. Beside these there is a professor of chemistry, a professor of anatomy and surgery, a professor of the theory and practice of physic, materia medica, and of obstetrics, constituting the medical department, established in 1798. The number of undergraduates, on an average, has been about 150, besides from 50 to 80, medical students. For the medical establishment an edifice has been erected at the expense of the state, of brick, 75 by 32 feet, and 28 in height. The institution is possessed of a very valuable chemical and medical apparatus. The college library contains about 4000 volumes. There are about 2000 volumes beside, in the libraries of societies of the students.

Connected with the college is Moore's charity school. This school is subject to a sole corporation, whose responsibility is well secured in its connexion with the college, and in its relation with "the society in Scotland for propagating Christian knowledge." Its funds, beside an edifice, consist of nearly 12,000 acres of land in Vermont and New-Hampshire, mostly in the former, and in part disposed of by long leases; about 11,000 dollars deposited in the funds, and in the care of the society in Scotland and expressly

destined for the education and religious instruction of the aborigines. The school has uninterruptedly existed more than 60 years, and has been essentially useful, particularly in promoting improvement of manners and religion among a number of savage tribes, within and bordering on the United States.

There are about 20 incorporated academies in the state. That at Exeter, called Phillips Exeter academy, was incorporated in 1781, and has funds amounting to about \$80,000, a building 76 by 36 feet, two stories high; a library of 6 or 700 vols. and a mathematical apparatus. Its officers are, a Principal, a professor of mathematics and natural philosophy, a lecturer in divinity, and an assistant. The average number of students is between 70 and 80, who are taught the learned languages, sacred music, and all the branches comprised in a good English education. It is in high reputation. This Institution was founded and liberally endowed, by the Hon. JOHN PHILLIPS, L.L.D. of worthy memory, one of the principal founders of Phillips academy at Andover, in 1778. It is the first in funds, and the third in age in New-England.

The other academies are spread over the state at convenient distances, for the accommodation of all the inhabitants.

Every town is obliged by law to have one or more common schools.

Towns.] Portsmouth is the largest town in the state. It stands 3 miles from the mouth of the Piscataqua, on the south bank. The harbor is one of the best on the continent, having a sufficient depth for vessels of any size. It is protected by the surrounding country from every wind, and is never frozen. It is so well fortified by nature, that only a small expense is necessary to render it impregnable. A light house, with a single light, stands at the entrance of the harbor. Here are 3 Congregational churches, 1 Episcopalian, 1 Baptist, 1 Methodist, and 1 Universalist; a state house, court house and jail, a work house, and 4 banks. Population in 1800, 5,339; and in 1810, 6,934. In 1817, the number of dwelling houses was 927.

Exeter stands at the head of navigation on the Swamscot, a branch of the Piscataqua, which has here sufficient depth for vessels of 500 tons. It is well situated for a manufacturing town, and contains a duck manufactory, 6 saw mills, a fulling mill, slitting mill, paper mill, snuff mill, 2 chocolate and 10 grist mills, a powder mill, 2 printing offices, a saddlery, iron works, &c. It contains 2 Congregational churches, 1 Baptist, an academy, bank, court house, and jail. Population, in 1810, 1,759. It was formerly the seat of government.

Concord is a pleasant flourishing town, on the Merrimac, over which there are here two bridges. The houses are principally on the W. bank of the river. Much of the trade of the upper country centres here. The canals and other improvements on the Merrimac, which have opened a boat communication between this town and Boston, have increased the importance of this place. It is the seat of government, and has 2,393 inhabitants. The public

buildings are a Congregational church, a court house, 2 banks, a penitentiary, and state house ; the two last of stone.

Charlestown is a pleasant town on Connecticut river, built chiefly on one street, and containing a Congregational church, court house, jail, and an academy. In the south part of the town lies a large and beautiful interval. Population 1,501. Cheshire bridge connects this town with Vermont.

The village of Dartmouth in Hanover, is 36 miles above Charlestown, and stands on an elevated plain. It is laid out in squares, and is well built, containing a church, academy, college, chapel, a building for the medical department, a handsome hotel, and a large tontine edifice, and 2,135 inhabitants.

Haverhill is at the Lower Coos or Great Oxbow, a singular bend in the Connecticut, forming one of the most delightful intervals in the world. It has a Congregational church, a court house, a jail, and academy, and 1,105 inhabitants.

Keene is one of the prettiest towns in New-England, and pleasantly situated a few miles east of the same river, having a church, court house, jail, and 1,646 inhabitants.

Manufactures.] The value of the manufactures of this state, for the year 1810, according to returns made to the Secretary of State, was \$8 135,027 ; excluding doubtful articles, \$5,225,045. There has been since this period a rapid increase. There were in 1818, more than 30 incorporated factories in the branches of cotton and woollen, mostly on a large scale, beside others not incorporated. There are also companies formed for the manufacture of iron, wire, alum, glass, small arms, &c. and a mineral company. The people throughout the country generally manufacture their own clothing, and most of their domestic utensils and furniture.

Trade.] The chief articles of export are timber, of various kinds, dried and pickled fish, whale oil, tar, flax seed, beef, corn, oxen and cows, horses, sheep, bricks, pot and pearl ashes. The amount in 1810 was \$234,650, and in 1798, \$723,242. This decrease was owing to the restrictions on American commerce. In 1817, the amount was \$197,424. The imports consist of West India rum, gin, molasses, wine, porter, sugars, tea, coffee, cotton, cheese, nails, cordage, salt, seacoal, steel, lead, and grindstones. About 27 schooners and 20 boats with 250 men, exclusive of those belonging to the isles of Shoals, are annually employed in the fisheries. The product of these fisheries, in 1791, was 25,850 quintals. The inhabitants in the S. W. parts of the state, trade with Boston ; in the middle and north as far Haverhill, with Portsmouth ; and farther north, with Portland.

Banks, &c.] There are 10 incorporated banks in the state, at Portsmouth ; Dover, Exeter, Concord, Keene, Amherst, and Haverhill ; and 5 Insurance Companies.

Canals and Turnpikes.] Five canals have been formed on Connecticut river, 2 of which are within the limits of New-Hampshire. By these the navigation is opened on this fine river for nearly 250

miles from its mouth. A short canal has been formed round Amoskeag falls in the Merrimac, and several others around falls above. Another has been cut through the marshes of Hampton and Salisbury, 8 miles, and meets the Merrimac opposite Newburyport. Turnpike roads are constructed intersecting the most important parts of the state, too many to be particularly enumerated. The estimate is that about 600 miles of turnpike road has been made.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE, FACE OF THE COUNTRY, SOIL AND AGRICULTURE, RIVERS, LAKES, MOUNTAINS, CURIOSITIES.

Climate.] SEE New-England.

Face of the Country.] The shore of New-Hampshire is chiefly a sandy beach, within which are salt marshes intersected by creeks. Only two bluffs appear on the coast, the Great and Little Boar's Heads; both in Hampton. For 20 or 30 miles from the sea the country is either level, or made up of little hills and vallies. Then commences the first range of mountains. Beyond these are several detached mountains of considerable elevation. Still farther back is another range; east of the Merrimac, and between that and the Connecticut is the principal range in the state. The mountains are all covered with wood; the highest only have their tops bare. The country on the whole may be called mountainous.

Soil and Agriculture.] The soil of the state is generally very fertile, and hardly any such thing as a barren is known. The interval lands on the large rivers are the richest; they yield great crops of hay, and from 40 to 50 bushels of wheat to the acre; while the uplands yield 20. The uplands are very rich pasture. The soil in the new lands may be distinguished by the trees growing on it. White oak and chesnut land is hard and stony, and needs plowing to be fit for grass or pasture, but is good for Indian corn. Pitch pine land is dry and sandy, will bear a crop or two of rye or maize, and must then lie fallow. White pine land is light and dry, but has a deeper, stronger soil, yet must be plowed for grass. If the oil nut is intermixed, the soil is usually a deep moist loam. Spruce and hemlock denote a thin, cold, soil; which will bear a small crop of grass, without plowing, and has a natural tough sward, which must be removed. If birch is intermixed with them, it denotes a moist soil excellent for grass. Beech and maple land has a warm, rich, loamy soil, fitted for grass, maize, or

grain, without plowing, and is most easily cultivated : if neglected, it becomes meadow land. Land covered with black and yellow birch, white ash, elm, and alder, has a deep, rich, and moist soil, and will admit grass and grain without plowing. Red oak, and white birch, denote a soil that is very strong and lasting. Of all grains winter rye thrives best on new land, and maize or barley on old. Maize, however, succeeds very well in the new ; but barley, flax, oats, and peas will not thrive till the land has been cultivated some years. Agricultural improvements are greatly increased in the western part of the state. Orchards are multiplying and productive.

Rivers.] The Connecticut, Ameriscoggin, and Saco rise in New-Hampshire, and the western bank of the first, is its west boundary.

The Merrimac is formed by two branches. The northern, the Pemigewasset, has its sources in Moosehillock, and in a mountain lying between that and the White mountains. It is a very rapid river, has many falls, and runs south about 60 miles ; receiving Baker's river, the stream of New-Chester pond, and Smith's river on the west, and Squam river, from Squam lake, on the east. In Sanborntown it is joined by the Winnipiseogee, the eastern branch, a short stream, which comes from Winnipiseogee lake on the N. E. Here the united stream takes the name of Merrimac river ; and, after a course of about 65 miles, in a S. by E. course, and 35 in one N. N. E. falls into the sea at Newburyport. Its principal tributaries from the west are Blackwater, Contoocook, Piscataquoag, Souhegan, and Nashua ; from the east, Suncook and Beaver. Hookset falls in the Merrimac are 8 miles below Concord, which have been lately canalled. The river falls 15 feet in 30 rods. Eight miles lower down is Amoskeag fall, which consists of three large pitches, in half a mile ; in all 80 feet, which have also been canalled. It has another fall called Patucket falls in Massachusetts, which have experienced the same improvement.

The Contoocook, the chief tributary of the Merrimac, rises in Massachusetts, and runs N. N. E. 60 or 70 miles, emptying a little above Concord.

The Piscataqua heads in a pond in the N. E. corner of Wakefield, and pursues a S. S. E. course to the sea, forming the boundary between Maine and New-Hampshire. From its head to the falls in Berwick it is called Salmonfall river ; and thence to the Cochecho, the Newichawannoc. Its whole length is about 50 miles. Seven miles from its mouth, it receives the western branch, which is formed by the Swamscot from Exeter, the Winnicot from Greenland, and the Lamprey, which divides New-Market from Durham. These empty into a bay called Great bay, 4 miles wide, which is soon contracted into a lesser bay, and then receives Oyster and Back rivers, and joins the main stream at Hilton point. Below this the river is very rapid, and never freezes. Each of these little streams is navigable to its lower falls, about 12 miles from Portsmouth, where there is a landing place, and a convenient situation for a trading village. Six miles above Portsmouth, a bridge was

built over the Piscataqua in 1794. It is 2600 feet long, and is built chiefly on piles. The remainder is a stupendous arch, with a chord of 244 feet, over water 46 feet deep. It cost 68,000 dollars.

Upper Ammonoosuc rises on the north side of the White mountains, and runs N. N. E. about 15 miles where there is a carrying place of 3 miles, to the Ameriscoggin. It then turns west, and runs 20 miles to the Connecticut, emptying at Northumberland. Israel's river, a smaller stream from the same mountains, empties at Lancaster. Lower or Great Ammonoosuc heads on the west side of the White mountains, a few rods from the source of the Saco, and pursues a southwesterly course of 40 miles, to the Connecticut, emptying between Bath and Haverhill, where it is 100 yards wide. It is a rapid and furious stream. Two miles from its mouth it receives Wild Ammonoosuc, from Moosehillock, which by a rain of 2 hours becomes a violent torrent. Ashuelot river heads in Sunapee mountain, and runs S. S. W. to the Connecticut, about 40 miles, emptying at Hinsdale.

Lakes.] Winnipiseogee lake is the largest in the state; being 24 miles long from S. E. to N. W. and from 3 to 12 miles broad. Several long necks of land project into it from the N. and it contains a number of islands. It is frozen three months in the year, and many sleighs and teams cross it on the ice. In summer it is navigable its whole length. Umbagog, the next largest lake, is in the northeastern part of the state. A small portion of it is in Maine, and it discharges its waters by a short stream from the E. into the Ameriscoggin. Squam lake, N. W. of the Winnipiseogee, is 5 miles long and 4 broad. Ossapee lake lies E. of Ossapee mountain; and, through a river of the same name, empties its waters into the Saco. Sunapee lake, N. of Sunapee mountain, is 8 miles long and 3 broad, and empties through Sugar river into the Connecticut. Messabesic is a large pond in Chester, and discharges its waters into the Merrimac, from which it is distant 4 or 5 miles to the eastward.

Mountains.] The first range, about 30 miles from the shore, is called the Blue Hills. It passes through Rochester, Barrington, and Nottingham, and is no where of any great elevation. Moose mountain, Mount Major, and several other detached eminences, lie S. and S. E. of Winnipiseogee lake. Farther back the mountains rise higher, and assume more of a connected character. In this range the highest summits are Ossapee, Choconia, and Kyarsarge. The White mountain range enters the state in the western part, and passes between the waters of the Connecticut and Merrimac, pursuing a course N. by E. till beyond the source of the Pemigewasset, it bends more to the right, and proceeds N. E. by N. towards the sources of the Ameriscoggin. The White mountains are a spur from the main range, and have already been described. Moosehillock, the loftiest summit in the main range, is about 4500 feet high. Sunapee is in the same chain farther S. and still farther the Monadnoc, the height of which is 3254 feet above the sea. Its

base is 5 miles long from N. to S. and 3 broad. Its summit is a bald rock ; on some parts of it are large piles of broken rocks ; and the sides present volcanic appearances. These are also discoverable on West River mountain, in Chesterfield, on Connecticut river. About the year 1730 the garrison of fort Dummer was alarmed with frequent explosions, and with columns of fire and smoke emitted from the mountain. The same appearances were exhibited in 1732.

Curiosities.] In the township of Chester, on the main road from Newburyport to Dartmouth College, is a circular eminence, half a mile in diameter, and 400 feet high, called Rattlesnake hill. On the south side, ten yards from its base, is the entrance of a cave called the *Devil's Den*, in which is a room 15 or 20 feet square and 4 feet high, floored and circled by a regular rock, from the upper part of which are dependent many stalactites, nearly in the form and size of a pear, and when approached by a torch, throw out a sparkling lustre of almost every hue. Many frightful stories have been told of this cave, by those who delight in the marvellous. It is a cold, dreary, gloomy, place.

In the town of Durham is a rock, computed to weigh 60 or 70 tons. It lies so exactly poised on another rock, as to be easily moved with one finger. It is on the top of a hill, and appears to be natural.

In the township of Atkinson, in a large meadow there is a small island of 6 or 7 acres, which was formerly loaded with valuable pine timber, and other forest wood. When the meadow is overflowed, by means of an artificial dam, this island rises with the water, which is sometimes 6 feet. Near the middle of this island is a small pond, which has been gradually lessening ever since it was known, and is now almost covered with verdure. In this place a pole 50 feet long has disappeared, without finding bottom. In the water of that pond, there have been fish in plenty, which, when the meadow has been overflowed, have appeared there, and when the water has been drawn off, have been left on the meadow, at which time the island settles to its usual place.

ISLANDS.

The Isles of Shoals, 8 in number, lie 9 miles S. E. of Portsmouth light house, and 21 N. E. from the light houses of Newburyport, in lat. 42 59 N. lon. 70 30 W. from London. They were discovered by Capt. Smith in 1614, and called Smith's isles. They consist of barren rocks, and are inhabited by about 100 souls, who subsist by fishing. Before the revolutionary war, these isles contained about 600 inhabitants who carried on the fishery to a great extent. The *dumb fish*, as it is called, of these isles, is in high esteem, at the tables of connoisseurs in fish.

These islands are partly in Massachusetts, and partly in New-Hampshire, and have been, till lately, neglected by both, as to the moral and religious instruction of their inhabitants. See a full account of these isles in the Historical Collections, vol. vii. p. 242.

DISTRICT OF MAINE.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT AND BOUNDARIES, DIVISIONS AND POPULATION, ORIGINAL POPULATION, HISTORICAL EPOCHS, RELIGION, GOVERNMENT, MILITIA, MANNERS AND CUSTOMS, LITERATURE, TOWNS, ROADS, EASTERN LANDS, BANKS, COMMERCE AND MANUFACTURES.

Extent and Boundaries.] THIS District lies between lat. 43, 4 and 47, 50 N. and between lon. 64, 54 and 70, 40 W. Its shape is nearly that of a rhombus.

The eastern line, which separates this District from New-Brunswick is 150 miles long; the southern, on the Atlantic, 207; the western, which separates it from New-Hampshire 150, and the northern, along the highlands,* dividing it from Lower Canada, 220; containing 29,080, square miles, or 18,611,200 acres, 3,000,000 are covered with water.

Divisions and Population.] The following tables, taken in part from Mr. Whipple's statistical view of Maine, furnish full information on these topics.

* It is stated in a New-Brunswick paper, on what authority is not known, that the surveyors have found that the Highlands, indicated as a boundary by the Treaty of 1783, lay southward of St. John River, leaving the whole of that river, the settlements on the Madawaska, and that route to Canada, in the hands of the English. This will be determined when the Commissioners now employed in settling this boundary shall make their report.

TABLE I.

Counties.	Date of Incorporation.	Population 1810.	No. of Towns, 1816.	Chief Towns.
York,	1653	41,877	22	York and Alfred,
Cumberland,	1760	42,831	24	PORTLAND,
Lincoln,	1760	42,992	32	Wiscasset,
Hancock,	1789	22,560	23	Castine,
Washington,	1789	7,870	11	Machias,
Kennebec,	1799	32,564	32	Augusta,
Oxford,	1805	17,630	28	Paris,
Somerset,	1809	12,910	26	Norridgewoc,
*Penobscot,	1816	7,471	19	Bangor,
		228,705	217	

The following table presents a view of the population of the District of Maine in three divisions, of three counties each, lying north and south.

TABLE II.

	1790.	increase.	1800.	increase.	1810.
<i>First Division.</i>					
Washington, Penobscot, and Hancock, }	12,307	8,445	20,752*	17,149	37,901
<i>Second Division.</i>					
Somerset, Kennebec, and Lincoln, }	29,962	24,532	54,494	33,972	88,467
<i>Third Division.</i>					
Oxford, Cumberland, and York, }	54,171	21,370	75,659	26,688	102,338
	96,540	54,356	150,896	77,809	228,705

The following table exhibits the census of the four sections which are divided by Schoodic or Passamaquoddy, Penobscot, Kennebec,

* This county contains 10,250 square miles, as many as in the whole state of Vermont.

and Androscoggin rivers, in 1810. One third of the population of the towns, which are on each side of the Kennebec, are allowed for the parts of those towns which are east of the river.

TABLE III.

First Section, from Schoodic to Penobscot	23 283
Second Section, from Penobscot to Kennebec	58 812
Third Section, from Kennebec to Androscoggin	46,570
Fourth Section, southwest of Androscoggin	100,040
	<hr/> 228,705

TABLE IV.

Aggregate of different descriptions of persons in Maine.

Males under 16 years of age	59,736
of 16 and under 45	42,482
of 45 and upwards	13,291
	<hr/> 115,509
Females under 16 years of age	56,958
of 16 and under 45	42,754
of 45 and upwards	12,515
	<hr/> 112,227
Other persons except Indians not taxed	969
	<hr/>
Total,	228,705

Original Population.] The Abenakis or Tarrateens, occupied the whole of this district, before it was settled by Europeans. They were considerably numerous. The Norridgewocs, a tribe of the Abenakis, were situated on the upper part of the river Kennebec. The Penobscots lived on the river Penobscot, and possessed the eastern country. Before the reduction of Canada most of the Norridgewocs withdrew thither. The rest of that tribe, and all the Penobscots, put themselves under the protection of the English. In 1795 there were 7 of the former tribe in and about Norridgewoc, and about 300 of the latter on Penobscot river. The Penobscots have since increased in consequence of the encouragement of their Romish priests to early marriages.

Historical Epochs.] The first attempt to settle the country in 1607.

The establishment of a Dutch fort at New-Castle.

The grant of the district by the British crown to Sir Ferdinand Gorges, in 1635. He appointed a governor and council.

The establishment of a government by the settlers in 1647.

The submission of the inhabitants to the government of Massachusetts in 1652.

The French were dislodged from Penobscot in 1664.

Nova Scotia and *Acadia*, which embraces the eastern part of Maine, as far west as Kennebec river, were ceded to France by the treaty of Breda, 1667.

Sir William Phipps took possession of Port Royal, and all the seacoast to Penobscot, 1690.

The incorporation of the District with Massachusetts in 1691, by a charter from William and Mary.

The various wars with the savages, at different periods, which ended in their almost total extirpation.

Fort Pownal was built at an expense of £5000; 1759.

The unsuccessful Penobscot expedition sailed from Boston in 1779.

The unsuccessful attempts of some of the inhabitants in 1785, 1786, and 1802, and since, to effect, in a peaceable manner, a separation of this district from Massachusetts Proper, and its erection into an independent state.

Religion.] Congregationalists are the most numerous. The number of their churches is 117. 131 Baptist, 23 Methodist, 2 Episcopal, 3 Roman Catholic, and 3 Universal churches.

Government.] Maine is an integral part of Massachusetts, and is under the same government.

Militia.] See Massachusetts. Of 13 divisions into which the militia of Massachusetts is divided, 6 are in Maine.

Manners and Customs.] The first settlers of the interior of Maine were principally employed in procuring lumber. A few of them were hunters and fishermen. Their character partook of the unsettled and roving nature of their pursuits, and the vices incident to such a life were unhappily prevalent. Since that period they have become farmers, and are improving in their circumstances and their manners, and resemble the inhabitants of New-Hampshire and Massachusetts Proper, whence a great part of them emigrated.

Literature.] Schools are maintained in most of the towns, and in many of the plantations. There are 25 academies, scattered in the principal towns in the District, generally with small funds, in some of which instruction is suspended. Some of them are endowed with grants of land. A Congregational theological seminary for the education of young men for the ministry, is established at Hamden, and another for the Baptists, at Waterville.

Bowdoin College, in Brunswick, was incorporated in 1795. It is named after the late Hon. *James Bowdoin*, whose benefactions amounted to 10,000 dolls. He bequeathed to it his valuable library. The legislature has endowed it with 5 townships of land. These will in time, be a most valuable fund to the institution. It is entrusted to a board of 13 trustees, and another board of 45 overseers. The buildings are 2 colleges, and 1 chapel. The situation is pleasant, and the institution prosperous. The number of students in 1816 was 55, and annually increasing. Its library contains about 5,000 vols.

Towns.] **PORTLAND** is built on a peninsula in Casco Bay, and was incorporated in 1786. The harbor is deep, safe, capacious, and seldom frozen over. It is one of the most commercial towns in Massachusetts, and contained in 1810, 7,169 inhabitants, and in 1818 about 9,000. Here are 8 churches, 3 Congregational, 2 Baptist, 1 Episcopalian, 1 Methodist, and 1 Quaker, a brick academy, and a handsome court house. Forty two vessels were built here in 1810, measuring 10 726 tons. In 1818, 27,770 tons of shipping were owned in this town. A light house was erected in 1790 on a point of land called Portland Head, at the entrance of the harbor. This town, while a part of Falmouth, was burnt by the British in 1775, and in 1786, was incorporated.

BATH is a very flourishing town on the western side of the Kennebec, 16 miles from the sea, at the head of winter navigation. It is the 8th commercial town in Massachusetts, and the 3d in population in Maine, containing 2 491 inhabitants. It has 2 Congregational churches, and 1 for Baptists. The inhabitants own upwards of 20,000 tons of shipping.

WISCASSET is on the Sheepscot, 10 miles E. of the Kennebec, and 12 from the sea. The river is here navigable for the largest ships. The town contains 2,083 inhabitants. The village has 4 streets running parallel with the river, crossed at right angles by another 140 feet wide, leading to the long wharf, which is 550 feet in length. On this street stand the public buildings, which are a Congregational church, a court house and jail, and an academy. The town is healthy. More people die of a consumption here than of any other disease.

Hallowell lies on both sides of the Kennebec river, 40 miles from its mouth. The village is on the W. bank, and contains about 230 houses, with a Congregational and a Methodist church, and an academy. It is a pleasant thriving town, and has about 3,000 inhabitants. In 1810, the number was 2,068.

Augusta, the county town, is 3 miles above Hallowell, and contains 1,805 inhabitants. It has a court house, jail, female academy, and a Congregational church.

YORK is 9 miles from Portsmouth, and contains 2 Congregational churches, and 3,046 inhabitants. It was settled in 1630, and was then called Agamenticus. York river passes through the town. Over this river, about a mile from the sea, a bridge was built in 1761. The bridge stands on 13 piers and was planned and conducted by Major Samuel Sewall, an ingenious mechanic, and a native of the town. The model of Charles river bridge was taken from this, and was built under the superintendence of the same gentleman. It has also served as the model of other bridges, and been imitated even in Europe by those ingenious American artists Coxé and Thompson.

Roads.] A road has been surveyed from Hallowell, on the Kennebec, to the river Chaudire. It will cross the highlands. The distance will be from 200 to 250 miles.

Another road is laid out from Bangor, on the Penobscot, to Quebec, a distance of about 200 miles; course N. 40 degrees W. It passes through Brownville, thence to the east of Moosehead lake, thence across the western branch of Penobscot river to St. Joseph's church, on the Chaudire, which is about 52 miles from the city of Quebec, to which there is a good road all the distance. The whole distance on the road from Bangor to Quebec, will be about 190 miles. Half this distance is now passable. The upper settlers on the Kennebec, will derive great benefits from this road. The country through which this road is to pass was explored for the first time, by any white person, in the spring of 1810, by Dr. Isaac Wilkins and Capt. Ezekiel Chase, and found to be in general good for roads and settlements. After passing Brownville 20 or 25 miles, in a northerly course, over a ridge of mountains, the country thence to the Chaudire is level, variegated only with gentle swells. Another important road has been surveyed from the Penobscot to a new settlement in the northeast corner of Maine, on St. John's river.

Another advantageous road is contemplated to be opened from Bangor, W. through Herman, Carmel, Canaan, Bloomfield, Norridgewoc, E. Andover, to Connecticut river.

It is expected that in the summer of 1819, a carriage road will be opened from Anson, (12 miles N. W. of Norridgewoc) to the Canada line, about 70 miles; thence to Quebec is between 80 and 90 miles, 60 of which has a good road, through a country thickly settled.

Eastern Lands.] Large tracts of land in Maine, in the counties of Washington, Penobscot, Somerset and Oxford, belonging to the state, are thus denominated. In June, 1795, the state had sold of these lands to the amount of \$269,000, which had gone into the treasury, beside a contract for 2,839,453 acres, the amount of which is not known, of which the state retains 103 680 acres for masts. At the period above mentioned, the state had granted for the encouragement of literature, and for other useful and humane purposes, 431,000 acres, and had yet at their disposal about 8,700,000 acres. A considerable part of this has been since sold, or granted for useful and benevolent purposes. In 1816, about 6 million acres were supposed to belong to the commonwealth.

Banks.] The banks in Maine are the following, viz.

Names.	Places.	Capitals.
Portland Bank	Portland	\$300,000
Maine Bank	Portland	300,000
Lincoln and Kennebec Bank	Wiscasset	200,000
Saco Bank	Saco	100,000
Hallowell & Augusta Bank	Hallowell	200,000

There are banks also at Bangor and Waterville.

Commerce and Manufactures.] Lumber is the great article of export; particularly masts, and every species of ship timber. White pine and oak boards are exported in great quantities. Dried cod-

fish, pickled salmon and shad are also a considerable article of commerce.

In 1813, the domestic exports from Maine amounted to \$169,763
Foreign, do. 18,959

Total \$188,722

The exports of lumber, fuel and lime, to Boston and other parts of Massachusetts Proper, was supposed to amount to an equal sum with the above.

Maine is divided into 11 collection districts, in the whole of which are owned 125,006 tons of shipping.

The manufactures of the district are of the same kind as in the other New-England states. In 1810, they amounted, exclusive of doubtful articles, to \$2,137,781.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE AND SEASONS, FACE OF THE COUNTRY, SOIL AND AGRICULTURE, BAYS, RIVERS, LAKES, MOUNTAINS, MINERALS, ANIMALS, BURNT LANDS.

Climate and Seasons.] THE winters though severe are regular and healthy, they commence in November and close about the last of March. The ground, the most of this period, is covered with snow, and the harbors, ponds, and rivers frozen over. Apples flourish in the interior but not on the coast. Indian corn grows to a good size. Pears grow in all parts of the district. Probably there is no country in which the inhabitants enjoy a purer air, or a more healthy climate. The cold in the district of Maine, as well as in every other part of North-America, is found to be more intense than in the same degrees of latitude on the eastern continent. The weather in this country is more regular in the winter than in the southern states. Vegetation commences here later than in more southern parts of New-England, but is much more rapid.

Face of the Country.] The district of Maine is an elevated country, but rather uneven than hilly or mountainous. The land rises very gradually from the coast, and most of it is capable of cultivation. There is no range of mountains of any consequence, except the high land on the northern frontier. Agamenticus is a single

mountain in York, in lat. 43 16, of considerable height, and a noted landmark for mariners.*

Soil and Agriculture.] The soil of this country west of the Androscoggin is rather light and lean, particularly on the coast. With proper cultivation, however, it yields good crops. The land on the Kennebec, and between that river and the Penobscot, is excellent and well adapted to tillage and pasture. East of the Penobscot it is less productive. The coast furnishes large supplies of rockweed. It is an excellent manure and beginning to be extensively used. It is estimated that there are 4000 acres on the coast, each yielding annually 20 loads. Ten loads spread upon an acre are reckoned a rich manure for three years. This an excellent grazing country, and supports large stocks of cattle. Wheat, corn, rye, at an average of 17 bushels an acre; barley, oats, peas, hemp, and flax flourish, and are extensively cultivated. Upwards of 760,000 bushels of wheat, corn, rye, and other grains, it is estimated, are annually raised in this district. Hops are the spontaneous growth of the country. Apples, plums, cherries, pears, grapes, raspberries, gooseberries, currants, blackberries, and cranberries are among the wild fruits.

Bays and Harbors.] Casco bay puts up between Cape Elizabeth and Small Point. It is 30 miles wide at its mouth, and 14 deep, contains a great number of islands, and forms a most excellent harbor, for vessels of any burthen.

Penobscot bay, the estuary of Penobscot river, is about 16 leagues across at the mouth. It puts up between Naskeag and Thomastown, about 35 or 40 miles into the interior, and is also full of islands, one of which, Long Island, in the middle of the bay, is 15 miles long, and from 2 to 3 broad, forming a township called Illesborough.

Frenchman's bay lies farther east. It has the main on the W. N. and E. Mount Desert on the S. and W. S. W. About the centre of this bay is a range of islands, called the Porcupines, which lie in a crescent, and landlock the inner harbor, leaving four passages, two of which have 30 or 40 fathoms of water, and not a ledge, or rock in the way. A cable's length from these islands there is 20 fathoms of water. Within the Porcupines is a most beautiful harbor, large enough to hold 200 sail at anchor, with 18 or 20 fathoms of water, a bottom smooth and muddy. Within the bay are four har-

* The following curious scrap, which has reference to this mountain, seems to be worth preserving: "St. Apinquid was born in the year 1588, was more than forty years of age when converted to Christianity; he died May 1st, 1682, aged 94 years, on Mount Agamenticus, where his sepulchre remains to this day. On his tomb-stone is still to be seen this couplet:

"Present, useful—Absent, wanted,
"Lived desired—Died lamented."

The Sachems of the different tribes attended his funeral obsequies, and made a collection of a great number of wild beasts to do him honor by a sacrifice on the occasion, agreeable to the custom of those nations; and on that day were accordingly slain 25 Bucks, 67 Does, 99 Bears, 35 Moose, 240 Wolves, 82 Wild Cats, 3 Catamounts, 482 Foxes, 32 Buffaloes, 400 Otters, 620 Beavers, 1500 Minks, 110 Ferrets, 520 Raccoons, 900 Muskquashes, 501 Fishers, 3 Ermines, 38 Porcupines, 50 Weasels, 832 Martins, 59 Woodchucks, and 112 Rattlesnakes.—The whole number being 6711. He was a preacher of the Gospel to sixty-six different nations fifty years, from the Atlantic Ocean to the Californian Sea."

bors, where a thousand sail might ride secure from every storm. The tide here rises 22 feet. On different parts of Frenchman's bay are 24 saw-mills and five grist-mills.

Passamaquoddy bay is the estuary of the Schoodic and the St. Croix, and forms a part of the boundary between Maine and New-Brunswick, and is the most extensive bay, next to the Penobscot, in Maine. It is six miles wide from N. to S. by 12 miles from E. to W. The coast throughout is every where indented with bays and lined with islands. The harbors, proceeding from E. to W. are Lubec, Machias, Goldsboro, Castine, Owlshead, Waldoboro, Bristol, Wiscasset, Portland, Saco, Kennebunk and York.

Rivers.] The St. Croix is an inconsiderable stream, noticeable principally as forming part of the eastern boundary of the United States. The Schoodic is larger, and farther west. The western branch of the Penobscot rises west of Moosehead lake, lat. 46° N. within 20 miles of the branches of the St. Lawrence, and runs, at one point, within two miles of that river. The eastern branch runs through several small lakes. After their junction the course of the river is nearly S. to Penobscot bay. After a course of 40 miles, it receives the Neketow, a large branch, from the west. thence it passes within 12 miles of Kataden mountain. The navigation for boats is unobstructed for about 70 miles. Vessels of 30 tons come within a mile of the head of the tide. The whole length of the river is about 300 miles. This river, for beauty and usefulness, may be considered as the first in the district. There is none that equals it for ease of navigation, or exceeds it in plentifulness of fish, the excellency of its timber, or the commodiousness of its mill privileges.*

The Kennebec is the second river in the district. It derives its name from a race of sagamores by the name of *Kenebis*. Its western branch rises in the N. W. part of it and runs a great distance parallel with the Chaudire, but in opposite directions, the Chaudire carrying part of the streams of the highlands north to the St. Lawrence, the Kennebec another part, south to the Atlantic. The boatable waters of the two rivers are only 5 miles apart. The eastern branch is the outlet of the waters of Moose lake, and runs not more than 30 miles before its confluence with the western, at the distance of 100 miles from the source of the latter. The united stream flowing 50 miles, passes the ancient town of Norridgewoc, where it receives Sandy river, and 30 miles below is joined by the Sebastacook from the E. which comes from lakes nearly north from its mouth, and flows 150 miles. Immediately above the Sebastacook are the falls of Karatunk, the largest on the river. Teconic falls are 40 miles farther down. They form numerous mill seats, and a lively village stands upon the shore. The head of the navigation for sea vessels is 18 miles below, and 46 from the sea. Here the river forms a large basin and furnishes very commodious anchoring ground. Twenty miles from the sea, the Kennebec receives the Androscoggin, at Merry Meeting bay, a name derived from the expansion of the two rivers at their confluence. The mouth of the Kennebec is a bay of considerable size.

* Sullivan.

The Androscoggin is a western branch of the Kennebec. It rises north of lake Umbagog, in New-Hampshire and runs southwardly till it approaches the White Mountains, from which it receives Moose and Peabody rivers. It then turns E. then S. then S. E. till it passes within two miles of the sea; then turning N. it descends the Pejepscot falls, and unites with the Kennebec, as has been mentioned.

The Saco river rises in the White Mountains, in New-Hampshire, in which its course is S. Turning to the N. E. it enters Maine, and pursues a southeasterly direction to Saco bay. It is navigable for ships 6 miles to Saco falls. Here a number of valuable saw-mills are erected. Vast quantities of timber are floated down this river. The Saco rises within a quarter of a mile of the Lower Ammonoosuc, a branch of the Connecticut. It receives Ossapee river from the W.

Piscataqua river bounds Maine for some distance on the west. Its course is principally in New-Hampshire.

Lakes.] The Umbagog lies partly in Maine and partly in New-Hampshire.

Moosehead lake lies in the northern part of the district, at no great distance from the highlands. It is 40 miles long, and from 10 to 15 wide, indented by numerous bays, and interspersed with beautiful islands. The borders are varied and handsome. The waters abound with large and excellent trout. The land E. and N. W. is good. S. W. it is, at some distance, rough and mountainous.

Lake Sebacock, 18 miles N. W. of Portland, is a considerable body of water, and is connected on the N. W. with Long pond by Sungo river. The whole extent of these waters are nearly 30 miles.

In Maine there is a profusion of lakes and ponds. The maps of the globe exhibit no other country, of equal dimensions with the *inhabited* part of Maine, possessing a greater number.

Mountains.] The Spencer mountains lie east of Moose lake, 8 or 10 miles distant. One of the summits is very high.

Mount Kataarden or Katadin, is an eminence about 80 miles northerly of Bangor, in the crotch of Penobscot river. From its top 72 ponds are said to be visible.

Mount Kinio lies on a peninsula on the east side of Moosehead lake, about midway from N. to S. It is very high, and the east side is nearly perpendicular. Its substance is granitic.

Minerals.] Mountain and bog iron ore are found in various places. There is a species of stone in Lebanon, York county, which yields copperas and sulphur.

Animals.] Numerous flocks of deer, and some moose of a large size, formerly inhabited Maine; there are few now to be seen, especially in the western parts of it. Some deer are killed in Mount Desert island every winter.

The animals common to northern climates, such as the fox, bear, wolf, beaver, &c. are found here; and an animal, called by the natives, *buccarebou*, of a size between the moose and the deer, was for-

merly found in this country. Cattle and horses are here easily raised; and the sheep, on the Kennebec river are larger than in Massachusetts Proper, the mutton is of a higher flavor, and the fleeces much heavier.

The sheep on the Kennebec suffer from the heat of the summer; but never from the cold of the winter, except the lambs; which however, in one or two days after their birth, become dry in their coats, and brave the winter like their parents.

The rattle-snake is the only poisonous serpent in this district, and is seldom seen. Flies, except for a few weeks in the heat of the summer, are not troublesome.

Burnt Lands.] These are lands extending from near Penobscot river 50 or 60 miles in a westerly direction, and south of those high clusters of mountains which pass under the names of Abema, the Sisters, and Spencer mountains. The breadth of these lands is very irregular; perhaps 10 miles may be considered as the mean breadth. The trees on this extensive tract were first prostrated by some violent tempest, which happened about the year 1795. The general face of these lands is level, and the tempest must have poured over the mountains, like water over a dam, for the bodies of the trees fell from the north, in which direction the mountains lie. This extensive tract was set on fire (whether by lightning, or by the carelessness of the Indian hunters, or through design, for the convenience of hunting, is uncertain) about the year 1803, at the time the inhabitants first began to settle on those ranges of townships, which lie N. of the Waldo patent, and spread over the whole tract. A fire was again kindled on this tract in the summer of 1811, but being baffled by shifting winds, and finally extinguished by rain, it continued its ravages but a few days, and spread over but few miles of territory. But the trunks of trees, the outsides of which are now reduced to coal, and the combustibles annually accumulated from the leaves of decayed vegetables, form such a body of tinder, as that a fire, in any dry time and favoring wind, would renew and extend its ravages over this whole tract. The face of nature has been laid bare by conflagrations. The hills, ponds, and streams are no longer embowered, as in the wilderness, but are laid open to the eye of the beholder from chosen eminences. The appearance of the whole country, in the season of vegetation, is not unlike that of a cultivated country, but we can no where behold the dwellings of men or the shelters of animals, nurtured by his care, but are left to fancy them in rocks, which have the appearance of the abodes of men at a distance. The margins of a few of the rivers, where the land was low and marshy, are lined with its ancient growth, which keeps the eye from tiring with the uniformity of the prospect. Multitudes of animals must have perished, the bones of which have been discovered.*

* Rev. Mr. May.

MASSACHUSETTS PROPER.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT, BOUNDARIES, DIVISIONS, NAMES, ORIGINAL POPULATION, HISTORICAL EPOCHS, RELIGION, GOVERNMENT, POPULATION, MILITIA, REVENUE, MANNERS, LITERARY, RELIGIOUS AND HUMANE INSTITUTIONS, LITERATURE, TOWNS, ROADS, BRIDGES, CANALS, MANUFACTURES, BANKS, COMMERCE.

Extent.] THIS state lies between lat. 41 23 and 43 52 N. and between lon. 69 50 and 73 10 W. Its length, on the northern line, is 130 miles; on the southern from New-York to cape Cod, 190. Its breadth, in the west, is 50 miles; farther east, it is about 100; and on the cape in some places it does not exceed 15. The number of square miles is 6250.

Boundaries.] Massachusetts Proper is bounded on the N. by Vermont, New-Hampshire, and Massachusetts bay; on the E. by the same bay and the Atlantic; on the S. by the Atlantic, Rhode-Island, and Connecticut; on the W. by Rhode Island and New-York.

Divisions.] Massachusetts proper is divided into 14 counties and 294 towns.

Counties.	Towns.	Houses.	Population.			Chief towns.
	1810.	1800.	1790.	1800.	1810.	
Berkshire	32	4764	30,291	33,670	35,907	{ Stockbridge Lenox
*Hamden	} 18	9181	59,681	72,432	24,421	{ Springfield Northampton
*Hampshire						
*Franklin						
Worcester	53	9239	56,807	61,192	64,910	{ Greenfield Worcester
Middlesex	44	6585	42,737	46,928	52,789	{ Charlestown Cambridge Concord
Essex	24	7995	57,913	61,196	71,888	{ Newburyport Ipswich Salem
Suffolk	2	3286	44,875	28,015	34,381	Boston
Norfolk	22	3429		27,216	31,245	Dedham
Plymouth	17	4387	29,535	30,073	35,169	Plymouth
Bristol	19	4695	31,709	33,880	37,168	Taunton
Barnstable	13	2537	17,354	19,293	22,211	Barnstable
Duke's	3	463	3,205	3,118	3,390	Edgarton
Nantucket	1	779	4,620	5,617	6,807	Sherburne

Total 14 292 57,505 378,727 422,630 472,040

The number of representatives to Congress for the whole state is 20.

* These three counties, in 1810, constituted the old county of Hampshire, which is now divided as above.

Names.] The name *Massachusetts* was aboriginal, and belonged to a numerous tribe of Indians, that lived in the neighborhood of Boston. The southeastern part of the state, till the year 1692, was called *Plymouth*, or the *Colony of Plymouth*. In a few of the earliest grants, the northeastern part of the state was called *Mariana*. Many of the common people of New-England have always called Massachusetts the *Bay state*, because, before the revolution, its name was the *Colony or Province of Massachusetts Bay*.

Original Population.] The Pawkunnawkutts occupied the territory of Plymouth colony. This "great people," together with the Massachusetts, were swept away in great numbers by an epidemical sickness in the years 1612, 1613, 7 or 8 years before the Plymouth colony arrived.* The Massachusetts Indians possessed the principal part of the counties of Suffolk, Norfolk, and Middlesex. The Pawtucket and their tributaries, the Pennakooks, Agawoms, Naumkeeks, &c. occupied Essex and the northern parts of Middlesex counties, and the contiguous parts of New-Hampshire. The Nashawas held the northern parts of the county of Worcester; and the Nipmuks or Nipnets, the southern. On Connecticut river a succession of small tribes inhabited the county of Hampshire and seem to have had no common bond of union. The Mohekanneews, properly so called, or Stockbridge Indians, occupied the county of Berkshire and the neighbouring parts of the state of New-York.

Historical Epochs.] In 1614 the coast of Massachusetts was discovered and minutely explored by Capt. John Smith. Several fishing voyages were made on the coast 3 or 4 years afterwards.

In 1620 Plymouth was settled by a part of Mr. Robinson's congregation, under Carver and Bradford; and in 1621 the charter of Plymouth colony arrived.

In 1628 the foundation of Massachusetts colony was laid, the patent was granted, and Salem and Charlestown settled; and, in the following year the charter was confirmed by the king, and a form of government established for Massachusetts colony in England, and the government transferred from England to the colony. The last charter of Plymouth colony was procured in January, 1630. The first court of assistants was holden for Massachusetts at Charlestown, in August, and the first general court at Boston, in October of the same year.

In 1634 the charter of Plymouth colony was surrendered to the crown. An attempt was made the same year to compel the surrender of the charter of Massachusetts, and again in 1638, but they miscarried. The patent of Plymouth, in 1641, was transferred to the freemen.

In 1643 the four colonies of Massachusetts, Plymouth, Connecticut, and Hew-Haven, entered into articles of union, styling themselves *The United Colonies of New-England*. Rhode Island, petitioned to be a member of the confederacy, but was refused. The same year the state was divided into counties; and the general court the year after into houses.

* Gookin, Hist. Coll. vol. i. p. 148.

The colony engaged in Philips' war in 1675.

A *quo warranto* was issued against the colony in 1693; judgment was given against it in chancery the next year, and its charter was taken away.

James II. in 1685 appointed Joseph Dudley president of Massachusetts, New-Hampshire, Maine, and Rhode Island. His administration continued but a short time.

On the accession of William and Mary, in 1689, a council of safety was appointed by the freemen, and the assembly resumed the charter.

A new charter was granted in 1692. by which Plymouth, Maine, New-Brunswick, and Nova Scotia, were annexed to Massachusetts; but the governor and council were to be appointed by the crown. An explanatory charter was annexed to this in 1726, and accepted by the freemen.

In 1745 the troops of Massachusetts, Connecticut, and New-Hampshire sailed for Cape Breton and took Louisburg from the French.

In 1765, this colony proposed a general congress (which met at New-York) to resist the encroachments of parliament. It sent circular letters in 1768 to all the provinces to excite them to insist on a redress of grievances. The general court was immediately dissolved by the governor, and a convention soon afterwards met at Boston. The day after it rose, the town was occupied by British troops.

The destruction of the tea in the harbor occurred in 1773, and the shutting up of the port by parliament, the next year. The general court proposed a second congress, and chose delegates. It met at Philadelphia in September. The legislature resolved itself into a provincial assembly, and met at Concord.

The battle of Lexington was fought on the 19th of April, 1775, and an army immediately raised by the province. From actual returns made from all the counties in Massachusetts (except Nantucket and Duke's county) it appears, that on the 14th of April, 1775, (the time when the revolutionary war commenced) the following was the amount of all the warlike stores in the then province, viz.

Fire arms	-	-	-	-	-	21,549
Pounds of powder	-	-	-	-	-	17,441
Do of ball	-	-	-	-	-	22,191
Number of flints	-	-	-	-	-	144,669
Do. bayonets	-	-	-	-	-	10,108
Do. pouches	-	-	-	-	-	11,979

The amount of the town stocks.

Fire arms	-	-	-	-	-	68
Barrels of powder	-	-	-	-	-	357½
Pounds of ball	-	-	-	-	-	66,781
Number of flints	-	-	-	-	-	100,531

The quantity of powder would furnish little more than half a pound to a man.

The battle of Breed's Hill, so honorable to American valor, was fought June 17th, and the eastern part of the state was the theatre of war till March, 1776.

The state constitution was agreed on in March, 1780.

The complete abolition of slavery was effected in 1783.

A serious insurrection took place in the western counties in 1786, in consequence of the burden of the taxes. The great body of the insurgents were in Hampshire county, and were headed by Daniel Shays. It was quelled early in the following year by Gen. Shepard.

Religion.] The constitution of this commonwealth authorizes all persons, of whatever religious persuasion or sentiments, to worship God agreeably to the dictates of his own conscience, provided he does not disturb the public peace. The most numerous denomination is that of the Congregationalists, of which there are 366 churches, which are supplied by nearly an equal number of pastors and candidates. The Baptists have 141 churches, the Methodists 22, the Episcopalians 14, the Universalists 11, the Presbyterians 8; several societies of Friends, and a Roman Catholic church. A number of the Congregational churches, and one Episcopal church, are Unitarian in their doctrinal faith.

Government.] The executive consists of a governor, lieutenant governor, and a council of 9 members. The two first are chosen by the people annually. The council is chosen by the legislature out of the 40 returned as senators; and, if they decline, from the mass of the people. The legislature, called also *The General Court*, consists of a senate and house of representatives, both chosen annually by the people. The senators are chosen by districts. The representatives by the towns. Each town having 150 rateable polls sends one, and another for every additional 225 polls. They assemble annually in May and January. The governor's assent is necessary to the passage of a bill, unless (after he withholds it) two thirds of both houses vote for it. The judiciary is composed of a supreme court, having 5 judges, and sitting twice a year in each county; county courts having 5 judges; a court of probate in each county; and justice's courts. These courts are subject to different modifications by law.

Population. The number of inhabitants in Massachusetts, including Maine, was in the year

1731	about 120,000		
1742	about 164,000		
1749	220,000		
1763	{ 235,810 whites } { 5,214 blacks }	241,024	
1784	{ 353,133 whites } { 4,377 blacks }	357,510	
		1790	{ 373,324 whites } { 5,463 blacks } 378,787
		1800	{ 416,393 whites } { 6,452 blacks } 422,845
		1810	{ 465,303 whites } { 6,737 blacks } 472,040

At the first census, Massachusetts was the second state in point of population, at the second and third, the fourth. Its white population in 1790 was the largest, and is now the third. The annual emigration from this state is larger than from any other, though not so large in proportion as from Connecticut.

Militia.] The militia of Massachusetts is composed of all the able-bodied white male citizens from 18 to 45 years of age, excepting within those ages, the clergy, and candidates, and all who hold any civil office of importance, either under the state or federal government; mariners, and also those who have formerly held any military commission whatever. The militia, thus embracing the greatest part of the active citizens, is completely armed and organized, and in as good a state of discipline as any real militia in the world, it being assembled by companies three times a year, for discipline, and once for revising the rolls and making returns, and also once by regiments or battalions for review and inspection. In Jan. 1805, from returns then made to the governor, there were in this whole commonwealth 10 divisions, in which were 58,879 infantry, 2,679 cavalry, and 2,531 artillery, making a total of 64,039. In 1811, there were 13 divisions, which formed 28 brigades, in which were 103 regiments, of infantry, 71 companies of cavalry, 70 companies of artillery.

	1811.	1812.	1818.
Whole number of Infantry (in- cluding officers)	64,930	64,510	66,249
Do. cavalry	2,730	2,835	2,822
Do. artillery	3,050	3,228	4,123
Total	70,710	70,573	73,194

The state owned, 1818, 251 pieces of ordnance, and 162 pieces of field artillery, and a due proportion of munitions and military stores.

The whole number of persons in the commonwealth, between 16 and 45 years of age, is 133,354; so that the militia rolls contain a little more than half the number between these ages.

Revenue.] The taxes of the year 1810 amounted to \$166,723:20.* On the first of Jan. 1811, the state owed \$809,884:64, and there was then due to the state \$1,055,958:94, leaving a balance in its favor of \$250,074:30. On the first January, 1819, the debt of the state amounted to \$580,711:91.† There was in the treasury, and due to the state, \$971,731:47—leaving a balance in favor of the state of \$394,019:56.

Banks] There are (1819), 30 banks of discount and deposit, in Massachusetts Proper, 8 in Boston, the rest scattered over the state.

Manners.] The state of society in Massachusetts generally is desirable. Every town is provided with schools, and with one or more churches. Children of both sexes acquire the rudiments of learning, and great numbers of the inhabitants are liberally educated. Most of them attend public worship on the sabbath, and good order and sobriety prevail during the week. The public execution of a native citizen is a very rare occurrence, and the number of petty offences is less than in most other countries. The state's prison, or penitentiary, contains short of 400 prisoners. The great body of the people are agriculturalists. They live in towns, and are the proprietors of the soil; there are few poor in the European sense

* The province tax in 1774, amounted to 10,312*l.* 10*s.* 34,561 dolls. 66 cts.

† There is a nominal debt beside this, of 124,798 dolls. 28 cents, "no very considerable part of which will ever be demanded of the Commonwealth."

Treasurer's Report.

of the word; but many individuals who are opulent. Respectability and a competence are open to all, and are possessed by the mass of the inhabitants.

Literature.] There are two public seminaries in Massachusetts Proper, viz. The University at Cambridge, and Williams College.

HARVARD COLLEGE, now the **UNIVERSITY AT CAMBRIDGE**, takes its date from the year 1638. Two years before, the general court voted, for the erecting of a public school, or college, in Newton, (since called Cambridge) 400*l*. This was but about six years after Massachusetts began to be settled; Plymouth at that time being a distinct colony.

In the year 1638, the Rev. John Harvard, of Charlestown, died, and left a legacy of 779*l*. 17*s*. 2*d*. sterling, being one half of his estate, to the fore-mentioned public school. In honor to the memory of so liberal a benefactor, the court ordered, that the school should take the name of Harvard College. In 1640 the court granted the income of Charlestown ferry, as a perpetual revenue to the college; and this year the Rev. Henry Dunster was appointed president, there having been before that time only a preceptor or professor, and an assistant.

In the year 1642, (when the first class finished their literary course, and the degree of bachelor of arts was conferred on them) the general court passed an act constituting a board of 'overseers,' "for the well ordering and managing of the said college," consisting of the governor and deputy-governor for the time being, and all the magistrates of the jurisdiction, together with the teaching elders of Cambridge, Watertown, Charlestown, Boston, Roxbury, and Dorchester, and the president of the college for the time being.

In 1650, the college received its first charter from the court, appointing a corporation consisting of seven persons, viz. a president, five fellows, and a treasurer, to have perpetual succession by election to their offices: Their style is, "The President and Fellows of Harvard College." To this body was committed all the estate of the college; and they have the care of all donations and bequests to the institution. After this charter was granted, the board of overseers continued a distinct branch of the government; and these two bodies form the legislature of the college.

After the declaration of the independence of the United States, the foregoing charter was established by the constitution of Massachusetts, and the governor and lieutenant-governor for the time being, together with the council and senate of the commonwealth, the president for the time being, and the congregational ministers of the aforesaid six towns, were declared successors of the old board of overseers.*

* In the winter of 1810, the legislature altered the charter respecting the board of overseers, making that body elective in future, excepting the governor and council, the president of the senate and speaker of the house, for the time being. By the new act, the board of overseers was to consist of the governor and his council, the president of the senate and speaker of the house, with 15 clergymen and 15 laymen; the latter 30 to be a permanent body with power to fill their own vacancies. The senators of the commonwealth, and the Congregational ministers of the towns mentioned, after the decease or removal of the

All elections to fill up vacancies in their own body are made by the corporation; they also choose all the executive officers: but all these elections are laid before the board of overseers for their concurrence, or non-concurrence, as are also all their votes for the enactment of standing laws, granting of salaries to the officers of the university, and conferring of academical degrees. Other affairs respecting the university, the corporation manage according to their own discretion.

The executive government consists of the president, professors, tutors, a regent, the librarian, and five proctors. Their duties are, to watch over the morals of the students, to see that the standing laws are obeyed, and to make discretionary regulations in cases not provided for by the laws.

The professors and tutors give instruction in the university. There are professors, of divinity, of mathematics, of natural and experimental philosophy, of Hebrew and other oriental languages, of rhetoric and oratory, of belles letters, of logic, metaphysics, and ethics, of natural history, of the Latin, Greek, French and Spanish languages and literature, of law, of mineralogy, of intellectual philosophy, of natural religion, of moral philosophy and civil polity, Rumford professor on the application of the mathematical and physical sciences to the useful arts; a lecturer on sacred criticism, and on ecclesiastical history and polity. Of the two tutors, one teaches mathematics, the other natural philosophy. The instructions of the tutors are given privately to the classes separately, those of the professors in lectures.

The foundation for the professorship of natural religion, moral philosophy and civil polity, was laid by a bequest of the Hon. John Alford, esq. of Charlestown. This bequest being subject to the disposal of Mr. Alford's executors, viz. the Hon. Edmund Trowbridge, of Cambridge, and Richard Cary, of Charlestown, esqrs. they appropriated it to this purpose.

Among the presidents* and professors of this university, have been men highly distinguished both for their natural abilities and acquired accomplishments.

latter in office, cease then, by this act, to be, *ex officio* members of the board of overseers. This act was repealed in 1811, and the government of the college restored to its former state. In 1814, the act of 1810 was re-enacted, with the addition of the senate to the *ex officio* part of the board.

* *Presidents of the University of Cambridge, from 1640 to 1810.*

1640	Rev. Henry Dunster,	resigned	1654
1654	Rev. Charles Chaunoy,	died	1671
1672	Leonard Hoar, M. D.	resigned	1674
1675	Rev. Urian Oaks,	died	1681
1682	John Rogers,	died	1684
1684	Rev. Increase Mather, S.T.D.	resigned	1701
1701	Rev. Samuel Willard, Vice-President,	died	1707
1708	Hon. John Leverett, S.R.S.	died	1724
1725	Rev. Benjamin Wadsworth,	died	1737
1737	Rev. Edward Holyoke,	died	1769
1770	Rev. Samuel Locke, S.T.D.	resigned	1773
1774	Rev. Samuel Langdon, S.T.D.	resigned	1780
1781	Rev. Joseph Willard, S.T.D. L.L.D.	died	1804
1804	Rev. Samuel Webber, D.D.	died	1810
1810	Rev. John Thornton Kirkland, D.D.		

The branches of literature and science in which the students are instructed are those commonly taught in European and American institutions of this kind.

The students are annually examined in the several branches to which they have attended in the course of their education, before a committee of the corporation and overseers.

A course of education is completed in the university in four years.

All academical degrees are publicly conferred by the president on the commencement day, which is the last Wednesday in August, annually. This is one of the most splendid anniversaries in the United States. The vacations are 4 weeks immediately succeeding commencement, 7 weeks from the 4th Friday in December, and 2 weeks from the 3d Friday in May.

The number of undergraduates, in 1819 was 278. Indigent students are much assisted in their education, by charitable funds belonging to the university.

From the establishment of this college to the year 1818, 4,442 young gentlemen had received its honors, of whom 1200 had been, or were then ministers of the gospel.

This *most ancient* of all the American colleges, has furnished both for the church and state its full proportion of eminently learned and useful men.

There is a fund from the estate of Edward Hopkins, esq. of Great-Britain, which yields a considerable sum annually, towards the support of six resident bachelors of arts, appointed by the corporation, which they receive after a certain term of residence and publicly delivering in the chapel four theological dissertations, two in the Latin, and two in the English language.

The late governor Bowdoin left the sum of 400*l*. "the interest to be annually applied by the president and fellows, in the way of premiums for the advancement of useful and polite literature among the residents, as well graduates as undergraduates of the university."

The list of liberal benefactors to this institution is long and respectable; and contains the names of some of the most eminent characters in Great-Britain and America. Its funds are much larger than those of any of the other American colleges.

In the year 1782, a medical institution was formed in the university. It consists of a professorship of anatomy and surgery, of the theory and practice of medicine, of chymistry and materia medica, and of clinical medicine. Each of the professors is established upon a foundation.

The lectures of the professors, commencing on the first Wednesday in October, are delivered at the medical college in Boston, in a handsome brick edifice, in which is a library of 4000 volumes, and an excellent anatomical museum. The number of medical students in 1819, is about 50.

A Theological Seminary has been attached to the university, which is open to graduates from all other colleges, in which the

various branches of theological science are taught by a number of the professors of the university, and a partial support afforded to indigent students. The number of students in 1818, was about 20. A law school was established at the university in 1817, which has a learned and able professor. The edifices appertaining to the university are, Harvard, Massachusetts, Hollis, Stoughton, Holyworthy, and University Halls, Holden Chapel. 3 College houses, beside that for the president, to which may be added the Medical College in Boston.

The library contains 25,000 vols. and is annually increasing. The philosophical and chemical apparatus are complete and excellent. There is a botanical professor, and a garden of 8 acres, well located, and enriched with many plants, shrubs, trees, &c both indigenous and exotic, attached to the university. The amount of property belonging to this ancient and great Institution, the largest in our country, including the buildings, falls little short probably of 600,000 dollars. Yet it is supposed that the funds of the Theological Institution at Andover yield a larger income than those of the university. The latitude of Harvard Hall is $42^{\circ} 28' 28''$ N. the longitude $71^{\circ} 7' 30''$ W.

WILLIAMS COLLEGE, in Williamstown, in the northwest corner of the state, was founded in 1793, and named after Col. Ephraim Williams, its principal benefactor. The legislature of the college is composed of a corporation of 15 members, of which the president is one. Its officers are, a president, a professor of law and civil polity, a professor of mathematics and natural philosophy, and three tutors. There are two collegiate buildings for the reception of students. It has a library of about 1,500 vols. It has between 90 and 100 students. The commencement is on the first Wednesday in Sept. The speedy removal of this college to some one of the towns in Hampshire county, on or near Connecticut river, is expected.

PHILLIPS ACADEMY, in Andover, 20 miles N. of Boston, was founded and handsomely endowed in 1778, by the Hon. Samuel Phillips esq. of Andover, his brother, the Hon. John Phillips, L.L.D. of Exeter, and incorporated 1780. It is under the direction of a board of 13 trustees, and the immediate care of a principal, who is a trustee, *ex officio*, 3 assistants and a writing and a music master. The institution is accommodated with a large and commodious brick building erected in 1818, 80 by 40 feet, on a range with the buildings of the Theological Institution. It is situated on a delightful and healthful eminence, commanding an extensive prospect.

The design of this foundation, according to its constitution, is, "The promotion of true piety and virtue, the instruction of youth in the English, Latin, and Greek languages; together with writing, arithmetic, practical geometry, music and oratory, logic and geography; and such other of the liberal arts and sciences, or languages, as opportunity and ability may hereafter admit, and the trustees shall direct." Its funds amount to between 50,000 and \$60,000 and the number of its students (in 1819) was about 120.

Liberal provision was made in the funds of this academy, by the late Dr. John Phillips, for the assistance of indigent young men of genius and piety, and of students in divinity.

Provision having been made for the purpose, in the original constitution of this respectable academy, a THEOLOGICAL INSTITUTION was established, and annexed to it, which was opened for the instruction of students in divinity, in the autumn of 1808. This new and distinct branch of Phillips Academy was founded by Samuel Abbot, esq., who gave \$20,000 to support a professor of Christian theology, (and who left a residuary legacy of between 80,000 and \$100,000, beside other contributions, to the amount of 10,000 to 15,000 dollars.) and madam Phœbe Phillips, relict of the late lieut. gov. Samuel Phillips, and her son the Hon. John Phillips, esq. of Andover, who gave the buildings. To this theological institution is annexed an *Associate Foundation*, made by Moses Brown, and William Bartlett, esqrs. merchants of Newburyport and the Hon. John Norris, of Salem, who gave each \$10,000, for the support of an associate professor, and of theological students. William Bartlett, esq. has also given \$20,000, as a fund for the support of a professor of sacred rhetoric, and has erected two houses for the accommodation of the professors. In addition to these liberal donations, the late Mrs. Norris, relict of the Hon. John Norris, above named, has bequeathed \$30,000 to this institution, for the same purposes for which the other funds of the *Associate Foundation* were given; and Moses Brown esq. (Feb. 1819) has given to the *Associate fund*, \$25,000 for the support of a professor of sacred rhetoric and ecclesiastical history. The trustees of Phillips academy have the immediate care and direction of the theological, as well as of the academical institution. The theological institution has also a board of visitors, consisting of two clergymen and one layman* (together with the founders during life) who have a voice in the election and removal of the professors, and other usual visitatorial powers.

The immediate instruction and government of the students is committed to four professors, viz a professor of Christian theology, a professor of sacred literature, a professor, and an assistant professor of sacred rhetoric. The present number of students, consisting of graduates from the colleges, is 100, the greater part of whom are supported, either wholly or in part by the funds of the institution, and by private bounty. The whole number educated here up to Sept. 1818, is 173. The whole scheme of divine

* The first board of visitors were

Rev. Timothy Dwight, D.D. L.L.D. president of Yale college	} Permanent Board.
Rev. Samuel Spring, D.D.	
Hon. George Bliss, esq.	

Samuel Abbot, esq.	} Founders.
Moses Brown, esq.	
William Bartlett, esq.	

Those with this mark (*) are deceased. Rev. Calvin Chapin, D.D. fills the place of Dr. Dwight,—There is now a vacancy in the clerical part of the Board.

truth, as revealed in the holy scriptures, is here professedly taught, and a fair view of all the controverted doctrines of Christianity and forms of ecclesiastical government and discipline exhibited, from the ablest writers on all sides, and the pupils left free to form each his own opinions. The professors are always to be men, who having examined for themselves, shall have embraced, as the genuine doctrines of the gospel, the great doctrines of the reformation, summarily expressed in the assembly's shorter catechism.

The edifices appertaining to this institution, are, one of brick, 90 by 40 feet, 4 stories, and 32 rooms for students, and a house for the steward, built by madam Phillips and her son, Hon. John Phillips; another also of brick, 54 feet by 40, containing a chapel, 3 lecture rooms, a library room. (in which are upwards of 5000 volumes, well selected for their purpose) a very neat and commodious edifice, erected by the munificence of William Bartlett, esq. and three houses for the professors, two of which were built by W. Bartlett, esq. and the other by S. Abbot, esq.

The public examination is held annually on the 4th Wednesday in September. After which is a vacation of 6 weeks, and another 6 weeks from the first Thursday in May.

This institution promises to be a fruitful and salutary nursery to the church, and an important mean of elevating the standard of theological learning, and of correcting and harmonizing religious opinions among the clergy of New-England.

DUMMER ACADEMY, in Newbury, was founded in 1756, is under 15 trustees, has funds yielding \$1000 a year, a commodious building, and a handsome library.

Leicester academy, in the town of Leicester, was incorporated in 1784; **Bristol academy** at Taunton, in 1792; and **Derby academy** at Hingham, in 1797.

There are academies also at Plymouth, Sandwich, Dedham, Lynn, Westford, Groton, Deerfield, and other places.

By a law of the state, every town containing 50 families must maintain a common English school; and every town having 200 families, a grammar school, for instructing in Latin and Greek. Penalties are inflicted on those who disobey this law.

Literary, Religious and Benevolent Societies.] These institutions are highly respectable, and too numerous to be particularly mentioned and described. They exhibit a fair trait in the character of the inhabitants. Their good influence is felt to a great extent throughout the commonwealth, our country, and the world.

Towns.] **Boston** is the largest town in New-England. Its inhabitants would never consent to have it incorporated with city privileges. It was settled in November, 1630, from Charlestown, and called *Shawmut* by the Indians, and *Trimountain* by the first settlers. It was afterwards named *Boston*, out of respect to the Rev. Mr. Cotton, formerly minister of Boston in England. It stands on an irregular peninsula, 2 miles long, and in the broadest place 1 mile and 139 yards wide, at the head of Massachusetts bay. The buildings cover upwards of 1000 acres. The peninsula is

joined to the main land at the south end, by a narrow isthmus, called Roxbury neck. The harbor, east of the town, is large enough to receive 500 ships in a good depth of water; while the entrance will scarcely admit 2 ships abreast. It is diversified by 40 islands. On one of these, called Castle Island, stands Fort Independence, 3 miles from the town. This, with Fort Warren, on Governors island, command the entrance: these works are new and strong. Fort Strong, on Noddle's island, strengthens the defences of the town and harbor. The wharves and quays are about 80 in number. Long wharf is 1743 feet long, and 104 broad. The number of arrivals from foreign ports in 1817, was 775, coastwise, 1,649, cleared for foreign ports 685, coastwise 1,494. In 1816, 143,420 tons of shipping were owned in this town. On the north and west of the town is the estuary of Charles river. Charlestown bridge was thrown over it at the N. end of the town, at an expense of \$50,000. On the west side of the town, is the West-Boston bridge, leading to Cambridge, which is 3846 feet long and 40 wide, with a causeway of 3344 feet. The expense was \$76,700. Between the above bridges, is Craige's bridge, a handsome structure, which connects Boston with Lechmore's point; and is the shortest, and least expensive of the 3 bridges. Another bridge at the south end of the town, connects it with a part of Dorchester. A dam is now making across the bay from the head of Bacon street to Brooklyn, which will open another communication of great convenience and importance to the town, beside furnishing a large number of mill seats for various manufactures.

The streets of the town are generally narrow and crooked, and laid out without regard to convenience or taste. Great improvements however, have recently been made in the streets, and some are elegant. There are upwards of 150 streets and lanes, beside alleys, and courts. The number of houses, in 1800, was 2870, which have been greatly increased since. Those in the older parts of the town are generally plain; but in West-Boston, round the common, and in market street, there is more magnificence in the buildings, than, in the same compass, in any town in the United States. The population of Boston, in 1790, was 18,038; in 1800, 24,937; and in 1810, 33,250. The public buildings are an old and new state-house, Faneuil hall, 3 market houses, court house, theatre, concert hall, 8 banks, jail, almshouse, exchange,* atheneum, which has a fine collection of books, in different languages, to the amount of about 20,000 volumes, Franklin place, which is the depository of the valuable collections of the Historical Society, the medical college, 24 churches, viz. 11 for Congregationalists, 3 for Episcopalians, 3 for Baptists, 1 for Unitarians, 1 Friends meeting house, 2 for Methodists, 1 for Roman Catholics, 1 for African Baptists, 2 for Universalists, and 1 place of worship for travelling preachers. Several of the churches are elegant edifices. The foundation of the General Hospital was laid in West-Boston, July 4, 1818. The

* This spacious edifice was burnt in 1818.

new state house fronts southeast upon the common, which is a handsome open field, containing 45 acres, and limited on the east by the mall, a fine walk, 600 yards long, and adorned by two rows of trees. The building is 173 feet long, 61 deep, and 50 high, besides an attic story in the centre, 60 feet wide and 20 high, and a circular dome above it, 30 feet high and 50 in diameter. On the top of the dome is an elegant circular lantern, supporting a gilt white pine cone. The appearance (both of the interior and the exterior) of the edifice, is throughout elegant and noble; and the prospect from the top, of the town of Boston, its shipping, wharves, and buildings, of Charles river, the harbor, Fort Independence, and the numerous islands, of more than 20 flourishing towns, and of the surrounding hills, forming a vast amphitheatre, and every where beset with hamlets and villas, or adorned with fields and groves, is said not to be surpassed by the view from the Castle Hill of Edinburgh, or by that of the bay of Naples, from the castle of St. Elmo. The inhabitants of this town have long been celebrated for their hospitality and beneficence. By the aqueduct corporation, the town is supplied with water from a fine pond of pure water, in Roxbury. It contains 30 distilleries, 2 breweries, 8 sugar houses, 11 rope walks, a casting furnace, a large glass house, and extensive manufactures of paper hangings, cards, candles, and stone ware. In commerce it is surpassed only by New-York, Philadelphia and New-Orleans. The country market is excellent, as is the fish market, except as to shell-fish. Boston is governed by 9 selectmen, chosen annually by the people. Lat. 42, 23 N. lon. 71, 5 W.

SALEM was settled in 1628. The Indian name was *Naumkeag*. It is the second town, both in age and size, in New-England, and is 13 miles N. E. of Boston. It is built on a peninsula, formed by two small inlets of the sea. The northern is Beverly harbor, a draw-bridge passes over it 1500 feet long, and is a station for a small part of the vessels of Salem. But the south inlet is the proper harbor of the town. It is so shallow, that vessels drawing 10 feet of water, must load in the channel at a distance from the wharves. The streets and houses are generally neat, but plain. The town contains an Athenæum with 5,000 well selected volumes, 6 Congregational churches, 1 Episcopalian, 2 Baptist, 1 Friends, and 1 Universalist. The number of houses, in 1800, was 980. The population, in 1790, was 7,921; in 1800, 9,457; and in 1810, 12,613. The inhabitants are celebrated for their industry, true republican economy, and the support of good schools. It is the wealthiest town, of its size, in the United States, and has more capital employed in trade, and more shipping, in proportion to its population, than any other. Its merchants have been very successful in the India and China trade. In 1818, its merchants had 53 ships, amounting to 14,272 tons, in this trade. Here are three banks, having together a capital of \$700,000. Here is a marine society composed of masters who have been, or are employed in the East India trade, whose object is to afford relief to indigent members, and their families. They have a valuable and interesting museum.

BEVERLY lies north of Salem, from which it is separated by a handsome toll bridge. It is a commercial town, is largely concerned in the fisheries, has 3 Congregational churches and 1 Baptist, a bank with a capital of \$160,000, and 4,608 inhabitants.

MARBLEHEAD is built on a peninsula, 4 miles southeast from Salem; and has 2 Congregational churches, 1 Episcopalian, 1 Baptist, 1 Methodist, and an academy. The harbor, on the southeast side of the town, is a mile and a half long, and half a mile broad. The inhabitants are occupied almost wholly in the bank fishery; in which, in 1818, 760 men, in 103 vessels, measuring 7,739 tons, were employed; and in autumn, in the fields south of the town, millions of codfish are spread to dry, on frames covered with brushes, which are called *fish-flakes*. The country, indeed, for a great distance, is whitened with them; and those on land, if not those "off at sea," are saluted with a very different fragrance from that which *they* breathe "who now are passed Mozambique." The streets are narrow and crooked. The embargo, peculiarly affected this, and other fishing towns. Upwards of 12,000 tons of shipping are owned in this town. It has a bank with a capital of \$100,000. Population, in 1800, 5,211; in 1810, 5,900. The town is defended by Fort Sewall.

NEWBURYPORT is 33 miles N. E. of Boston, and $2\frac{1}{2}$ from the mouth of the Merrimac, and is the third commercial town in the state. The harbor is safe, large, and deep, but difficult to enter. It contains 7 churches; 3 Congregational, 2 Presbyterian, 1 Episcopal, and 1 Baptist; a court house, jail, bank, an academy, and 10 public schools. The population, in 1800, was 5,948; and in 1810, 7,634. The town contains but one square mile. The site is a beautiful declivity. Most of the streets are wide and handsome, and cross each other, nearly at right angles. The houses are very handsomely built; and the town has, perhaps, no rival in point of beauty, in the United States. The inhabitants are characterized by their hospitality, and amiable manners. A fire, in 1811, destroyed more than 100 dwelling houses, and many shops and stores of goods, to the amount of more than half a million of dollars; but the loss was partly made up to the sufferers by the cheerful liberality of their countrymen. It has not yet recovered from this loss, and the injury it sustained from the embargo. In this town, and in the neighboring towns on the Merrimac, there were built in 1811, 21 ships, 13 brigs, and 1 schooner, measuring upwards of 12,000 tons. In 1816, this town owned 24,691 tons of shipping.

NEW-BEDFORD, in the county of Bristol, is a thriving commercial town, 52 miles southward of Boston; on a branch of Buzzard's Bay, which may be considered as the mouth of Accushnet river. It has a safe and convenient harbor. The inhabitants of the town owned, in 1818, 23,712 tons of shipping. It has 2 houses of worship for Congregationalists, 1 for Friends, 1 for Baptists, and an academy for Friends. The village of New-Bedford has about 3000 inhabitants; the whole town, in 1810, 5,651.

PLYMOUTH, 36 miles S. E. of Boston, is the oldest town in New-England, having been planted in 1620. It has a large, but shallow

harbor; and contains 3 Congregational churches, and 1 for Baptists, and 4,228 inhabitants. The rock on which the pilgrims landed is still recognized here, and a part of it has been carried into the town. The anniversary of their landing is celebrated. Its inhabitants had, in 1816, 18,875 tons of shipping.

IPSWICH, the *Agawam* of the Indians, 37 miles N. N. E. from Boston, contains 4 parishes, in each of which is a Congregational church. Two of these are in the village, where are a court house, jail and other public buildings. Here is a society of Baptists. Its natural situation is pleasant, but it has many appearances of decline.

CHARLESTOWN, the Indian *Mishawum*, is N. of Boston, and connected with it by Charles river bridge. It stands on a pleasant peninsula, formed by Mystic river on the east, and a bay setting up from Charles river on the west. Two bridges connect it with Malden and Chelsea, on the east. In 1810, it had 4,959 inhabitants, the number has since increased. It has 5 houses for public worship, 2 for Congregationalists, 1 for Baptists, (of which denomination there are two other small societies) 1 for Universalists, and 1 for Methodists. The other public buildings are a marine hospital, and other buildings appertaining to the United States navy-yard; the penitentiary or state's prison, the hospital for the insane, a commodious alms-house, a spacious and elegant town-house, and 4 school houses, within the *neck*, as it is styled. The Middlesex canal terminates in this town. The manufactures of morocco leather, and of bricks, are carried on here on a larger scale probably, than in any other town in the state. Large quantities of soal leather are also made here, and there are many other manufactures to a smaller amount. The celebrated battle, commonly, but incorrectly, denominated, "Bunker Hill battle," was fought in this town, June, 17th, 1775, on Breed's Hill, which commands a fine view of Boston, its harbor, and the surrounding country.

WORCESTER is 37 miles W. from Boston, with which it is connected by a turnpike, and is pleasantly situated in a valley, and contains 2 Congregational churches, and 1 for Baptists, a beautiful court house, and a strong stone jail. The population is 2,577. Printing has heretofore been carried on here very extensively; likewise, manufactures of pot and pearl ashes, cotton, linen and paper.

NORTHAMPTON, on Connecticut river, is a flourishing, pleasant town, 100 miles W. N. W. from Boston, containing 2,631 inhabitants. It has a single house of worship for Congregationalists.

SPRINGFIELD, 97 miles W. of Boston, on the same river, is well built, and contains 2 houses of worship for Congregationalists, a national armory. Population 2,767.

Roads.] The roads in Massachusetts are generally well made. The country, in all directions, is intersected by turnpikes, which centre in the capital. That from Boston to Newburyport, 33 miles, cost \$400,000; and that from Boston to Salem, 13 miles, cost more than \$200,000. The road from Providence to Boston, 42 miles, is of the same expensive kind. The western turnpike, from Boston through Rutland, Northampton, to Pittsfield, runs the whole length

of the state. Another passes from Boston through Worcester; and another through Dedham and Mendon, to Hartford. Another through Andover, Londonderry, and Concord, to Dartmouth college; and another through Concord, Groton, &c. to Keene, and to Middlebury, in Vermont.

Bridges.] These have become too numerous and common, to be particularly mentioned and described in a work of this kind.

Canals.] There are two canals at South-Hadley. The descent at the upper falls is 55 feet. A mile below the mouth of this canal are the Wiltimanset falls, the whole descent of which is 16 feet. A canal of one mile in length, leads round them, which has two locks. By these various canals,* an immensely important inland navigation is opened the whole breadth of the state, through the rich and productive counties of Hampshire, Hamden, and Franklin.

Middlesex canal connects the Merrimac with Boston harbor. The whole distance is 30 miles; viz. 6 miles from the Merrimac to Concord river, and 25 thence to Boston harbor. Concord river is a sluggish stream, and has a fall in it, in the town of Billerica, 4 miles from its mouth. The canal commences in the Merrimac, a little above Patucket falls; and, in a southeast course of $3\frac{1}{2}$ miles, ascends, by 3 locks, 21 feet, to the level of Concord river above its fall. It crosses Concord river on its surface; and, in a southeast course of 25 miles, descends 107 feet, by 13 locks, to the tide water of Boston harbor. The locks are all 90 feet by 12, of solid masonry, and excellent workmanship. The width of the canal is 24 feet, and draws 4 feet water. Both parts of the canal are fed by Concord river. From that river, southward, it preserves the same level for the first 11 miles. In this distance, it was necessary to dig, in some places, to the depth of 20 feet; to cut through two difficult ledges of rocks; and to throw several aqueducts across the intervening rivers. One of these, across the Shawshine, is 280 feet long, and 22 feet above the river. There is another across Mystic river, at Medford. At the end of the 11 miles from Concord river, is a lock with 7 feet descent, and a mile and a half farther, another of the same height. Thence to Woburn the canal is level. Boats of 24 tons, 75 feet long and 11 wide, can navigate it. They are generally, however, smaller, and are drawn by two horses, at the rate of 3 miles an hour. Common boats pass from one end to the other in 12 hours. A raft, one mile long, and containing 800 tons of timber, has been drawn by two oxen, part of the way, at the rate of one mile an hour. The whole expense of the work has been above \$700,000, and was accomplished in 11 years from 1793. The tolls in 1818, amounted to \$22,831:89. The vast quantities of timber around Winnipiseogee lake, on Merrimac river and its branches, and Messabesic pond, and the produce of a great extent of very fertile country, will, in the end, be transported on this canal to Boston. It need not be added, that this is the greatest work of the kind yet completed in the United States. The grand canal now making in New-York will far exceed it.

* The stock of the two companies concerned in these canals, is divided into 1008 shares, one half of which belongs to gentlemen in Holland. The amount expended, has been about 200,000 dollars.

The Essex canal goes round Patucket falls in the Merrimac. These, as the river runs, are 40 miles from the sea. The whole descent is 34 feet. The canal has 3 locks, and is 4 miles long. It receives boats drawing $3\frac{1}{2}$ feet water. From the mouth of the canal to the head of the tide at Haverhill, the whole descent in the river is 45 feet, yet it is navigable the whole distance. A canal to connect Massachusetts bay, with Buzzard's bay, a work very practicable, and of immense importance, is still *talked of*, but no effectual measures have yet been taken to accomplish it.

Manufactures.] The amount of the manufactures in this state in the year 1810, according to returns made to the Secretary of State, was \$18,599,323. The estimate of Tench Coxe, esq. appointed by the President, to prepare a digest of the manufactures of the United States, from the returns of 1810, makes the amount \$21,895,528. The addition arises from the valuation of the manufactures, which were either entirely omitted, or imperfectly returned by the Marshall.

The chief articles may be thus arranged: cottons, articles of leather, ardent spirits, tanned leather, cordage, wrought and cast iron, nails, woollens, ships, straw bonnets, hats, cabinet work, flour, slit iron, paper, oil, soap, muskets, brass and copper, jewelry, bricks, carriages, and duck.

Lynn is the principal seat of the shoe manufacture. The tannery at Northampton is probably the largest in the United States. There are 6 paper mills on Neponset river, and 6 on Charles river, beside many others. West-Cambridge and Boston are the chief seats of the card manufactories. There is one of wire at Dedham; a very large one of cut nails at Malden, and others at Taunton, Bridgewater, Plymouth, Amesbury, Middleborough, and Walpole; and slitting mills at Dover, Plymouth, Danvers, Beverly, Amesbury, Newton, Norton, Taunton, and Bridgewater. Earthen ware is manufactured at Danvers and Lynn, and stone ware, bricks, morocco and sole leather, at Charlestown. Straw bonnets are made, in immense numbers, in Wrentham and the neighboring towns. Duck is manufactured at Boston, Salem, Haverhill, Northampton, and Springfield. Woollens at Pittsfield; and silk and thread lace at Ipswich. The window glass and other glass ware, made at Boston and at Craigie's point in Cambridge, is equal to any that is imported.

Commerce.] The exports from Massachusetts in 1804, amounted to \$16,894,379, and in 1810, according to the secretary's report, to \$13,013,048 of which \$7,251,277 were foreign produce, and \$5,761,771 domestic. In the year ending Sept. 30th 1817, the exports from Massachusetts, including Maine, amounted to \$11,927,997, and the state contributed to the revenue \$5,771,667:79. In 1816, there were owned by Massachusetts, including Maine 452,273 $\frac{1}{2}$ tons of shipping, more than a third part of the tonnage of all the United States; and she paid in 1817, more than a seventh part of the amount of revenue which was received into the United States treasury; while yet her population was less than a tenth part of that of the United States. Her ships visit every part of the world. The chief exports are fish, beef, lumber, pork, ardent spirits, furniture, flaxseed, beeswax, whale oil, spermaceti, whalebone, and

the more important manufactures above enumerated. The three first are the staples of the state.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE, FACE OF THE COUNTRY, SOIL AND AGRICULTURE, RIVERS, BAYS, CAPES, PONDS, MOUNTAINS, MINERALOGY, MINERAL WATERS, NATURAL CURIOSITIES, PENINSULA, ISLANDS, LIGHT HOUSES.

Climate.] SEE New-England.

Face of the Country.] The western part of the county of Hampshire and most of the county of Berkshire are mountainous. In this latter county, however, the valley of the Housatonnuc, comprises the flourishing and pleasant towns of Lanesborough, Lenox, Pittsfield, Stockbridge, and Sheffield. It is generally narrow, but every where fertile, and sometimes spreads to a considerable width. The valley of the Connecticut in this state is from 2 to 20 miles wide, and embraces a most rich and delightful country. In the three towns of Hadley, Northampton, and Hatfield, alone, the quantity of interval land exceeds 10,000 acres, all visible from a single spot. East of the river a range of mountains crosses the state from N. to S. on the eastern border of Hampshire, and the western of Worcester. Beyond this the country is for some distance hilly, then uneven, and near the shore level. The southeastern part of the state, including Plymouth, Bristol, and Barnstable, counties, is chiefly a plain.

Soil and Agriculture.] The three last mentioned counties have principally a light sandy soil, with some excellent tracts interspersed in the two first. Barnstable is chiefly a heap of sand. The rest of the state has generally a strong good soil, well adapted to grazing and grain. The average produce of the good lands is estimated as follows: 30 bushels of maize or corn to the acre, 30 of barley, 20 of wheat, 15 of rye, and 200 of potatoes.

The agriculture of Massachusetts surpasses that of any of the states, except Connecticut and Pennsylvania, and is rapidly improving by the commendable efforts of a number of intelligent, active and liberal minded agricultural societies, established in different parts of the state. The towns around Boston are literally gardens, from which the capital is supplied with the finest fruits, roots, and vegetables. The crops on the intervals of the Connecticut are the largest in the state. They yield, when well cultivated, from 60 to 80 bushels of corn, from 25 to 35 of wheat, the same quantity of rye, and from 2 to 4 tons of hay, to the acre. Similar lands on the Housatonnuc are also equally productive. Apples are the abundant fruit

in Massachusetts. They are of many kinds, and the quantity of cider annually made very great. Excellent pears abound. Peaches and other fruits of this climate are becoming very scarce.

The ox is the animal most used in agriculture, and next to the ox the horse. The ass and mule are not common.

Rivers.] The Connecticut divides the counties of Hampshire, Franklin, and Hampden. The Housatonnuc runs through most of Berkshire, but is really a river of Connecticut. The sources of the Quinabog, a branch of the Thames, are also in this state. The Merrimac has been described. The Pautucket also runs a considerable distance here.

Taunton river rises in the N. E. part of the county of Plymouth, and pursues a S. W. course of 50 miles to Mount Haup bay, the N. E. corner of Narragansett bay. It is navigable, for small vessels, nearly half that distance to Taunton; where it receives, from the N. N. W. Wading river, its chief tributary.

Charles river, the Indian *Quinobequin*, heads in a pond in Hopkinton, and pursues a very circuitous route, but on the whole in a N. E. direction, to Boston harbor, which it enters, after passing Charlestown. Its length is about 40 miles, and it is navigable to Watertown, 7 miles. In Dedham a stream, called Motherbrook, runs out of the Charles S. E. into the Neponset, forming a natural canal, and affording several excellent mill seats.

Neponset river issues from Mashapog pond in Sharon; and, after passing in a N. E. but winding course, furnishing numerous mill seats, meets the tide in Milton, whence it is navigable 4 miles to Boston bay. Its length is about 20 miles.

Ipswich or *Agawam* river rises in Wilmington, and runs about 15 miles, into Ipswich bay.

The Nashua, a branch of the Merrimac, rises in Mason, runs S. E. and N. E. about the same distance, and empties at Dunstable, after a course of about 45 miles. Its source and mouth are in New-Hampshire, but its chief course is in Massachusetts.

Concord river rises in Framingham, and pursues a course E. of N. to the Merrimac, emptying at Tewksbury. It is about 30 miles long. Its waters feed the Middlesex canal.

Miller's, or *Payquage* river, heads in a pond in Rindge, New-Hampshire, and falls into the Connecticut between Northfield and Montague. It runs about 30 miles.

Chicapee river rises in Gerry, in the N. part of Worcester county, and runs S. S. W. emptying at Springfield. It is about 50 miles in length.

Westfield river rises in Lanesborough in Berkshire, and proceeds in a S. and S. E. direction, emptying at West-Springfield, after a course of 50 miles.

Deerfield, or *Pocomptic* river, heads in Stratton, in Bennington county; and, running 40 miles S. and E. falls into the west side of the Connecticut, between Greenfield and Deerfield.

Bays.] Massachusetts bay has already been described.

Barnstable bay is the S. E. extremity of Massachusetts bay, setting up between Monumet and Race points, where it is 18 miles

wide. It is 25 miles deep, and its greatest width is about 32 miles.

Buzzard's bay, on the other side of cape Cod, sets up between Seaconnet point, in Rhode-Island on the W. and the Sow and Pigs (a collection of rocks off the S. W. end of Cuttahunk, one of the Elizabeth islands) on the E. From the head of the bay to Seaconnet point, is about 40 miles. Its width will average about 7.

Boston bay sets up between Alderton and Nahant points, about 8 miles. Its greatest length, from Charlestown to Hull, is 15 miles. Boston and Charlestown harbors are the western part of Boston bay.

Plymouth bay opens between Monumet and Gurnet points, and is about 9 miles long, and 6 deep.

Capes.] The most noted capes are cape Cod, cape Ann, cape Malabar, cape Poge, Gayhead, and Sandy point.

Ponds.] Quinsigamond pond, between Shrewsbury and Worcester, is 7 miles long, and in some places nearly a mile wide. It is in the shape of a crescent, and its shores are uncommonly beautiful. A floating bridge is thrown across a narrow spot, in the middle. It is interspersed with a number of islands, one of which contains upwards of 200 acres. Quabog pond, lies in Sturbridge. Ponds of various sizes, generally containing fishes of different kinds, are scattered in very many towns in the state.

Mountains.] The Taghconnuc range traverses the western tier of towns in the county of Berkshire, dividing the waters of the Hudson from those of the Housatonnuc. The loftiest summit, Taghconnuc, is in Sheffield, and is about 3000 feet high. The division lines between Massachusetts, New-York, and Connecticut are on this mountain, so that it lies partly in each of these three states.

The Green Mountain range runs east of the Housatonnuc, and pursues a course generally W. of N. Saddle mountain in Williamstown, unites the two ranges, is about 4500 feet in height, and is the highest land in the state. East of the principal chain are several inferior ranges.

The Mount Tom range runs N. N. E. to the southern line of Northampton, where Connecticut river passes between Mount Tom, and Mount Holyoke. The chain there takes an easterly direction for ten miles, and unites with the White Mountain range. Mount Tom, the highest summit in this range, is 1520 feet above the river, at its base, and about 1500 above the sea. The prospect from this mountain embraces eminences 160 miles apart, and is uncommonly extensive and commanding. Mount Holyoke, on the other side of the river, is about 250 feet lower than Mount Tom. The view from its top is probably unrivalled in beauty.

The White Mountain range runs up through the county of Hampshire, traversing the middle tier of towns east of the river. It has no considerable eminences. Farther east, in the middle of Worcester county, is a range of hills of no great elevation, apparently a subordinate chain of the White Mountain range. Wachusett, an eastern spur from this range, in Princeton, is 1657 feet

above the level of that town, and 2989 feet above the level of the sea.

Mineralogy.] Iron ore is abundant, particularly in the 3 south-eastern counties, and at Leyden, in Franklin county. Copper ore is found at Leverett, in the county of Hampshire, and at Attleborough, in Bristol. Several mines of black lead have been discovered at Brimfield, in Hampshire; and white pipe clay, and yellow and red ochre, in Martha's Vineyard. Quarries of marble have been opened at Stockbridge, Sheffield, Lanesborough, and several other places in Berkshire, and a vast extent of country is supplied by them. Rich pyrites is abundant at Brookfield in the county of Worcester.

Mineral Waters.] There are no mineral waters of much celebrity in this state. In Boston, West-Cambridge, Wrentham, Brighton, and Lynn, are springs, which at times have been visited by invalids, with some good effects. At the latter, commodious buildings have been recently erected, and they have become a place of considerable resort in the summer season. The waters of these springs have not been analyzed.

Natural Curiosities.] In the north part of the township of Adams, in Berkshire county, not half a mile from Stamford in Vermont, is a natural curiosity, which merits a description. A pretty mill stream, called Hudson's brook, which rises in Vermont, and falls into the north branch of Hoosuc river, has for 30 or 40 rods formed a very deep channel through a quarry of white marble. The hill, gradually descending towards the south, terminates in a steep precipice, down which, probably, the water once tumbled. But finding in some places natural chasms in the rocks, and in others wearing them away, as is evident from their appearance, it has formed a channel, which, in some places, is more than 60 feet deep. Over this channel, where deepest, some of the rocks remain, and form a natural bridge. From the top of this bridge to the water, is 62 feet; its length is about 12 or 15, and its breadth about 10. Partly under this bridge, and about 10 or 12 feet below it, is another, which is wider, but not so long; for at the east end they form one body of rock, 12 or 14 feet thick, and under this the water flows. It is evident, from the appearance of the rocks, that the water, in some places, formerly flowed 40 or 50 feet above its present bed. Many cavities, of different figures and dimensions, but generally circular, are worn out in the rocks. One of these in the solid rock, is about four feet in diameter, and four or five feet deep; the rock is on one side worn through at the bottom. A little above the bridge, on the west side of the chasm, is a cave or little room, which has a convenient entrance at the north, and a passage out at the east. From the west side of this cave, a chasm extends into the hill; but soon becomes too narrow to pass. The rocks here, which are mostly white, though in some places clouded or streaked with other colors, appear to be of that species of coarse white marble which is common at Lanesborough, and in other towns in Berkshire county.

In the town of Wrentham, about two miles south-east of the meeting-house, is a curious cavern, called *Wampon's Rock*, from an Indian family of that name, who resided in it for a number of years. It is situated on the south side of a hill, and is surrounded by a number of broken rocks. It is nearly square, each side measuring about 9 feet. The height is about 8 feet in front, but from the centre it lessens to about 4 feet. At present it serves only as a shelter for cattle and sheep, as do one or two other rocks or caves in the town, formerly inhabited by Indians.

Under this article we mention the falls of Powow river, which rises in New-Hampshire, and falls into the Merrimac between Salisbury and Amesbury, in the county of Essex. At these falls, the descent of the water, in the distance of 50 rods, is 100 feet, and in its passage carries one bloomery, five saw mills, seven grist mills, two linseed oil mills, one fulling mill, and one snuff mill, besides several wheels, auxiliary to different labors. The rapid fall of the water—the dams at very short distances crossing the river—the various wheels and mills arising almost immediately one over another, and the very irregular and grotesque situation of the houses and other buildings on the adjoining grounds, give this place a romantic appearance, and afford, in the whole, one of the most singular views to be found in this country.

Lynn Beach may be reckoned a curiosity. It is one mile in length, and connects the peninsula called Nahant, with the main land. This is a place of resort for parties of pleasure from Boston, Charlestown, Salem, and Marblehead, in the summer season. The beach is used as a race ground, for which it is well calculated, being level, smooth, and hard.

From the road passing from Newbury to Ipswich, the ocean is generally in sight. The barrier against it, this distance, is a beach of sand thrown up in a thousand little hills and valleys, of every fantastical and romantic figure, affording a prospect superior in its kind to any perhaps in America. On these little hills, in many places, are beautiful tufts of bushes, which form fine verdant crowns, happily contrasted with their pale colored bases. They bear a striking resemblance to snow drifts, formed by a violent wind. Between this beach and the main land is a remarkable marsh, a mile in breadth, extending nearly the whole distance, 12 miles, from Newbury to Ipswich.

In Rutland, on the farm of Mr. W. White, has lately been found a large stone, on which is a line of considerable length, in characters, which our correspondent supposes to be Ethiopian. They are regularly placed, and the strokes are filled with a black composition nearly as hard as the stone.

Peninsula.] The county of Barnstable is a peninsula, commonly called the *peninsula of cape Cod*. The isthmus between Buzzard's and Barnstable bays in the narrowest part is $3\frac{1}{2}$ miles across. The shape of the peninsula is that of a man's arm bent inwards, both at the elbow and wrist. Its length is about 76 miles; its breadth varies from 1 to 20; and its area is about 400 square miles. It comprises the county of Barnstable, a part of which contains some good

lands, but a great part is sandy and barren. The whole population of the cape is 22,211. A great part of the men and boys are constantly employed at sea. In this business they support themselves and their families. In the western towns however many of the inhabitants are engaged in merchandize and agriculture. The young people marry here at an earlier age than in any other part of the country; a proof that the means of subsistence are easily attainable. The cape is literally a nursery for seamen. Barnstable, the chief town, has 3 646 inhabitants. Its harbor, at the bottom of the bay, is a mile wide, 4 miles long; and is formed by Sandy Neck, a long sand bar, running out eastward, and embosoming a large body of salt marsh. Chatham, at the elbow on the outside, has a harbor with 20 feet depth, at low water. Provincetown is the hook of the cape, and generally narrow; the widest place not being more than 3 miles. The harbor is very deep and capacious, and opens to the S. It is safe except in a strong S. E. wind, when vessels sometimes drag their anchors. It was the first port entered by our Fathers, in 1620, when they came to settle this country. The town has about 30 sail employed in the cod fishery. Ten of their vessels, in 1790 took 11,000 quintals. The houses in the town are small and one story high, and stand on the inner side of the hook of the cape, in two ranges on the beach fronting S. E. and looking into the harbor. The flakes, on which they dry their fish, are around them. The fishing vessels run in upon the sandy shore, and throw their fish over. Here they are washed and carried to the flakes. Nothing is raised here; but every kind of vegetable production is brought from abroad. In 1791, there were but two horses, two yoke of oxen, and about fifty cows, in the town. In the spring, the cows feed on the beach grass, growing in spots, on the shore; in the summer, on the roots and herbs, in the ponds and marshes between the sand hills; and in winter, on sedge cut upon the flats. The harbor of Provincetown is often a shelter from storms, to vessels both inward and outward bound.

From Chatham, northward, the country is broken and hilly, except a border of sand on both shores. These hills are white sand, blown by the wind into a thousand fantastic shapes, and either wholly destitute of vegetation, or covered with whortleberry bushes, low pitch pine shrubs, or the grass of the cape. This singular plant, when it has once taken root on a hill, soon spreads itself over its surface, and seems designed by Providence to still the tumultuous waves of sand, which are tossed by every wind, like the waves of the ocean.

The cape abounds with clear, fresh ponds, generally stocked with fish. The wood is chiefly pitch-pine. Below Harwich there are no stones. The cellars are built of brick, in a circular form, to prevent the loose sand from caving in. The wells are secured in the same manner, and are kept covered, to prevent the sand from blowing in and filling them up.

In the western towns, maize, wheat, rye, barley, and flax, are cultivated. Maize, in the best lands of Barnstable, yields from 15 to 25 bushels; and flax grows very well. There are few orchards below that town, and there is not a cider mill in the county. Most of the forest trees, farther east, have more the appearance of a prim hedge than of timber. The high winds are particularly destructive to fruit. The winds are all from the sea. The cape, however, is healthy for all, except consumptive people; and many instances of longevity are on record. In consequence of the violent east winds, it is supposed that the cape is gradually wearing away. The incursions of the sea are often very violent; and the effects of its ravages are every where apparent. In Provincetown harbor, stumps of trees are seen, which the sea now covers in common tides. In 1620, *Webb's Island* lay off 9 miles east of Chatham, containing about 20 acres, covered with red cedar and savin, which the people of Nantucket formerly used to cut for fire wood. For a century it has been entirely worn away. The water is now 6 fathom deep; and a large rock, that once stood upon the island, now rises as much above the bottom of the sea, as formerly above the surface of the island. The rock marks the place where the island stood.

Whales were formerly caught in great numbers within the bay; now they are rare. A species of fish, called *black fish*, is very abundant. They are of the whale kind, weigh about 5 tons, and produce oil like whale oil. They come in shoals of several hundreds, and the inhabitants put off in their boats, and drive them ashore like so many cattle, on the flats; where they are left by the tide, and fall an easy prey. The shore is frequently covered with the huge bones of whales and black fish. Hundreds of sharks are often seen at once, lying on the shore at Race point, caught by the boats when fishing for cod. Cod and haddock are taken in abundance with the hook; and pollock, mackerel, and herring with the seine, all along the inner coast of the bay.

Islands.] Many islands are scattered along the coast. Plum island is about 9 miles in length, extending from Merrimac river on the north, to the entrance of Ipswich river on the south, and is separated from the main land by a narrow sound, called Plum island river, fordable in several places at low water. It consists principally of sand, blown into curious heaps, 10, 15 and 25 feet high, and crowned with bushes bearing the beach plum. There is however a valuable property of salt marsh, and at the south end of the island, are two or three good farms. On the north end are the light houses before mentioned. On the sea shore of this island, and on Salisbury beach, the Humane Society of Newburyport have erected several small houses, furnished with fuel and other conveniences for the relief of mariners, who may be shipwrecked on this coast. This island, in the season when the plums are ripe, is the resort of the neighboring inhabitants, and a scene of lively amusement.

Nantucket island is 15 miles in length, and 11 in breadth, about 70° W. lon. from London, and 41 20 N. lat. 8 leagues southward of Cape Cod, and 123 S E from Boston. The climate of this island is mild compared with that of the adjacent continent. The soil is light and sandy, except some part where the town stands, and some tracts at the east end of the island, which are of a loamy, rich soil. It is well watered with ponds and springs. A long sandy point projects from the east end of the island to the northward and westward, on which stands the light house, erected in 1734.* Between this point and the northern shore of the island is a bay which affords a fine road for ships, except with the wind at N. W. when there is a heavy swell. The harbor is a basin within this bay, obstructed by a sand bar, on which are seven and a half feet water at low tide; within the bar are twelve or fourteen feet water.

The neighboring sea produces cod, halibut, sturgeon, shad, herring, bass, eels, &c. On the land, are horses, cattle, sheep and hogs.

In 1790, there were 4,619, in 1800, 5,617, and in 1810, 6,807 inhabitants on this island. The men are principally robust, enterprising seamen and mechanics. The seamen are said to be the most expert whalers in the world. The women are handsome, and make good wives and good mothers. The inhabitants have been remarkable for living together like one great and harmonious family. Their private schools amount to more than 50.

"The land is held in common by the inhabitants, i. e. the island is supposed to be divided into 27 shares; (some few private farms excepted) each share is entitled to a certain portion of land, which the owner may take up in any part of the common land, and convert it to what use he thinks proper. Each share is subdivided into lesser shares, called *Cows' Commons*, which give the proprietor a privilege to turn out as many cows or other cattle as he owns of such parts in common or other stock, in the proportion of one horse or 16 sheep to two cows' commons; which stock feeds on any part of the land that is not converted into a field." All the cows, amounting to about 500, feed together in one herd; All the sheep, 14,000, in one pasture. Each proprietor marks his own. On the days of shearing, which are commonly *two*, on or about the 20th of June, and which are high festive days among the inhabitants, all the sheep are driven into an inclosure, and each proprietor selects and shears his own sheep.

The proprietors in common, plant about 675 acres of corn a year, averaging about 12 bushels an acre, making an aggregate of 8100 bushels, besides about 4000 bushels raised on the private farms. Every other year the land is sowed partly with rye, and

* The practicability and expediency of forming an artificial island on *Nantucket Shoals*, on which to erect some landmark for seamen, have been suggested. A note in *Massachusetts Register* for 1802, p. 180, on this subject is worthy the attention of the wealthy and humane.

partly with oats, yielding yearly about 500 bushels of the former, and 8000 of the latter; besides what is raised on the private farms.

The island is continually lessening by the washing of the sea. Shells of the same kind as are now found on the surface, have been dug from wells 40 or 50 feet below the surface, which indicate that at some former period the earth has encroached upon the sea.

This island was granted to Thomas Mayhew in 1641, by the agent of William, Earl of Sterling. In 1659, Mayhew conveyed nine tenths of it to nine proprietors, who the same year began the settlement of the island.*

The island of itself constitutes one county, which bears the name of the island. *Sherburne*, the only town, contains the bulk of the inhabitants.

Here are two banks, each with a capital of \$100 000.

The inhabitants formerly carried on the most considerable whale fishery on the coast, but the war almost ruined this business. They have since, however, revived it again, and pursue the whales even into the great Pacific ocean. There is not a single tree on the island of natural growth; they have a place called the woods, but it has been destitute of trees for these 60 years past. The island was formerly well wooded. The people, especially the females, are fondly attached to the island, and few wish to migrate to a more desirable situation.

The inhabitants of this island are principally Friends or Quakers; there are two societies of Congregationalists. Sixty years ago there were three congregations of Indians, each of which had a house for public worship, and a teacher. Their last Indian pastor died about the year 1775, and was a worthy, respectable character.

Martha's Vineyard, which lies a little to the westward of Nantucket, lat. $41^{\circ} 23'$, is about 21 miles in length, including Chabaquiddic, and six in breadth. It contains four societies of Congregationalists, at Edgarton, Tisbury, Chilmark, and Gayhead; 2 of Baptists. Martha's Vineyard, Chabaquiddic, Noman's island, and the Elizabeth islands, which contain about 16,500 acres of valuable land, constitute Duke's county, containing 3290 inhabitants, of which, (July 1801) 320 were Indians and mulattoes, subsisting by agriculture and fishing. The Indians have decreased nearly one quarter in 5 or 6 years.

Edgarton, which includes the fertile island of Chabaquiddic, three miles long, and one and a half broad, is the shire town. This little island joins to the harbor and renders it very secure. Gayhead, the westernmost part of the island, containing about 2400 acres, is very good tillage land, and is wholly occupied by Indians, but not well cultivated. One third of this tract is the property of the En-

* Folger and Macy's account of Nantucket.

glish society for propagating the gospel in New-England. A shrub oak plain covers about two thirds of the island. The principal productions of the island are corn, rye, and oats. They raise sheep and cattle in considerable numbers. There are four mill streams in Tisbury. The inhabitants of this county send three representatives, and, in conjunction with Nantucket, one senator, to the General Court.

Elizabeth islands lie in a row of about 18 miles in length, on the S. E. side of Buzzard's Bay. They are about 16 in number; the chief of which are Nashawn, Pasqui, Nashawenna, Pinequese and Cattahunk. Nashawn is famous for its excellent wool and cheese, and was the property of the late Hon. James Bowdoin, Esq. They are all in Duke's county.

The other islands of consideration are in that part of Massachusetts bay called the *Harbor*, which is agreeably diversified by about 40 of various sizes. Seven of them are within the jurisdiction of the town of Boston and taxed with it. Castle island is about three miles from Boston, and contains about 18 acres of land. This island has been ceded by Massachusetts to the government of the United States, and named **FORT INDEPENDENCE**. Very strong and expensive fortifications have been erected by direction of the general government, which are calculated effectually to defend the harbor against maritime enemies.

Light Houses.] Within this state are the following light houses; On Plum island, near Newbury, are two. On Thatcher's island, off Cape Ann, two lights of equal height. Another stands on a rock on the north side of the entrance of Boston harbor, with a single light. On the north point of Plymouth harbor are two lights. On a point at the entrance of the harbor on the island of Nantucket is one with a single light. This light may be seen as far as Nantucket shoals extend. The island being low, the light appears over it. Another is to be erected on *Martha's Vineyard*.

RHODE ISLAND.*

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT, BOUNDARIES, DIVISIONS, ORIGINAL POPULATION, HISTORY, RELIGION, GOVERNMENT, POPULATION, MILITIA, MANNERS, LITERATURE, CHIEF TOWNS, ROADS, BRIDGES, MANUFACTURES, BANKS, TRADE.

Extent.] THIS state is situated between 41 17 and 42° N. lat. and between 71 6 and 71 52 W. lon. Its north line is 29 miles long, and its west 49. The coast west of the bay measures 22 miles, the mouth of the bay 16, and the coast east of the bay 5 : in all 43 ; while the greatest width measured on a parallel is 37 miles. Rhode Island contains about 1580 square miles ; of which about 190 are water, and about 90 are included in the islands.

Boundaries.] N. and E. by Massachusetts ; S. by the Atlantic ; and W. by Connecticut.

Divisions.] The state is divided into 5 counties and 31 townships. The following are the counties with their population in 1810.

Counties.	No. towns.	Population.			Chief towns.
		1790	1800	1810	
Providence	10	24,391	25,854	30,769	Providence
Newport	7	14,300	14,845	16,294	Newport
Washington	7	18,075	16,135	14,962	{ S. Kingston E. Greenwich
Kent	4	8,848	8,482	9,834	
Bristol	3	3,211	3,801	5,072	Warwick
					Bristol
Total	31	68,825	69,122	76,931	

This state sends two representatives to Congress.

Original Population.] The tribe of Indians, that occupied Rhode Island, when the country was settled, was the Narragansetts. From them the bay was called Narragansett bay ; and the country, lying between it and Connecticut, was called Narragansett, and the Narragansett country. In 1620 the number of their fighting men was estimated at 3000 or 4000 ; and, in 1670, in the time of Philip, at

* The technical and constitutional title of this state is, "*Rhode Island and Providence Plantations.*"

2000. The whole number of souls at the first period was probably from 12,000 to 16 000, and at the second 8000. They were brave and powerful; and the only tribe in the neighborhood of the Pequods, which they had not conquered. In 1670, the Wampanoags had been some time possessed of the country around Bristol; and Mount Haup, or Hope, in that town, was the royal residence. Philip, their king at that time, was possessed of uncommon powers of mind. He had the address to unite the numerous petty tribes in the design of expelling the English intruders from the country; and, had he lived 20 years earlier, would probably have accomplished it. The Narragansetts united with him. The result of the effort was the destruction of both tribes by a party from Connecticut and Massachusetts in 1675, and the death of Philip the year after.

History.] The first settlement in this state was made by Roger Williams, and a party of malecontents, from Massachusetts, in 1635. In 1638, a deed was procured from the Indians of Aquidnic, or Rhode Island, and 18 men there formed themselves into a body politic, and elected Mr. Coddington, their leader, to be the chief magistrate. In 1643, a charter was obtained for the whole colony, by Sir Henry Vane. The charter, which is the present constitution, was obtained of Charles II. in 1663. The state had little to do with the early Indian wars; but in 1746 the inhabitants raised 300 soldiers, and equipped a sloop of war, with 100 seamen, towards the intended expedition against Canada. The expedition was unfortunate, and the design soon dropped. In the revolutionary war they were honorably active. General Greene was a native of this state. In December, 1776, Rhode Island was occupied by British troops. In August, 1778, an unsuccessful attempt was made by General Sullivan to dislodge them. In May, 1789, Rhode Island adopted the federal constitution.

Religion.] The Baptists are the most numerous denomination, having 57 churches. The tenets of most of them are Calvinistic; some are Arminian, and a few are Seventh-day Baptists. A still smaller number are called Separate Baptists, claiming peculiar sanctity. The other denominations are, 11 societies of Congregationalists, 5 of Episcopalians, one of whose ministers is the bishop of the eastern diocese;* 1 of Moravians, and a Jews synagogue. In this state religion is not supported by law. The clergy are maintained by the voluntary contributions of their people. To the disgrace of the state, an agreement on the part of a congregation to give their clergyman a stated salary cannot be enforced, and is not valid, in law. The consequence is, that the number of the clergy in the state is extremely small; a great part of the state is missionary ground, and the state of religion and morals is lamentably low. Days of

* The clerical and lay delegates of the Protestant Episcopal church in Massachusetts, Rhode Island, New-Hampshire and Vermont, met in convention, at Dedham, in May, 1810, and organized under the name of *The Protestant Episcopal Church in the Eastern Diocese of the United States of America*. The Right Rev. Alexander V. Griswold, D.D. is bishop of this diocese.

A large and respectable society, under the name of "The Trustees of Donations to the Protestant Episcopal Church," was incorporated by the legislature of Massachusetts, in March, 1810.

Thanksgiving, since 1807, have been regular as in the other New-England states. As yet they have no anniversary for fasting and prayer.

Government.] The charter of 1663 is the constitution of the state. The legislature is composed of a council of 12, including the governor and deputy governor, all chosen annually, and a house of representatives, consisting of deputies from the several towns, who are chosen twice a year. There is one supreme court, which sits twice a year in each county, and an inferior court of common pleas and general sessions of the peace for each county, sitting also twice a year.

Population.] The number of inhabitants was, in the year

1730	{ 15,352 whites } { 2,633 blacks }	17,985	1790	{ 64,470 whites } { 948 slaves }	68,825
1748	{ 29,755 whites } { 4,373 blacks }	34,128		{ 3,407 free blacks }	
1761	{ 35,939 whites } { 4,697 blacks }	40,636	1800	{ 65,438 whites } { 380 slaves }	69,122
1774	{ 54,435 whites } { 5,243 blacks }	59,678		{ 3,304 free blacks }	
1783	{ 48,538 whites } { 3,361 blacks }	51,899	1810	{ 73,214 whites } { 108 slaves }	76,931
				{ 3,609 free blacks }	

The inhabitants are chiefly of English descent.

A few years since there were about 500 Indians in the state, the greater part of whom resided at Charlestown. They speak the English language, and are gradually decreasing in numbers.

Militia] The militia of this state amounted, in 1817, to 8,350 men, organized, and disciplined in a manner similar to the rest of the New-England militia.

Manners.] The settlement of Rhode Island originated in a religious dispute; and most of the early settlers were exiles from Massachusetts, in consequence of their religious tenets. The prejudice and animosity excited in their minds, by this treatment, long remained; and their descendants for many years continued to cherish them. As late as 1811, there had never been a Congregational minister settled on the west side of the bay, except in Providence and Kingston. In the whole region west of the bay, the traveller sees few of the improvements in agriculture, roads, manufactures, or mode of living, which he finds in the neighboring states; and meets with little of that civility, for which the rest of New-England is remarkable. The missionary labors in this region, have not been without their good effects. It is but justice, however, to except from this description the county of Providence, in which are 25 meeting houses for different denominations, and more than this number of school houses, beside an academy in North Providence.

Literature.] Brown University, at Providence, was founded in 1764, at Warren; and was removed thence to Providence in 1770. It received its present name in 1804, from Nicholas Brown, Esq. who gave the institution 5,000 dollars. The collegiate legislature is composed of two branches, a board of fellows, 12 in number, including the president, who, with 7 of the others, must be Baptists;

and a board of trustees, in number 36, of whom 22 are Baptists, 5 Friends, 5 Episcopalians, and 4 Congregationalists. The fellows alone confer degrees. A majority of both branches must concur, in every other legislative act, to make it valid. This university, as it is denominated, has the following professorships, viz. of law ; of metaphysics and moral philosophy ; of the oriental languages ; of rhetoric and belles lettres ; of anatomy and surgery ; of materia medica and botany ; and of chemistry. The president is at present, professor of mathematics and natural philosophy. The professors and tutors may be of any denomination. The library contains about 3,000 volumes. The philosophical apparatus is valuable, and sufficiently complete for a course of lectures. The number of students averages at about 130. The college building is 150 feet by 46, and 4 stories high. It contains 48 rooms, and is pleasantly situated on a commanding eminence. Academies are established at Providence, North-Providence, Newport, Bristol, Warren, East-Greenwich, South-Kingston, Cumberland, Smithfield, and Wickford, the preceptors of which depend mostly on their pupils for support. The town of Providence alone pays about 4000 dollars annually for instruction ; and has 5 public schools, and a grammar school appendant to the college.

A law was passed some years since, establishing town schools through the state, after the manner of their neighbors on each side of them ; but it was found unpopular, and repealed ! Schools, however, are now kept during the winter months, in most of the towns in the state, though the laws make no provision for them. The teachers, therefore, in the country towns, are but scantily rewarded. The state of society, on the whole, is improving.

Chief Towns.] PROVIDENCE is the third town in New-England, in point of population. It was settled, in 1636, by Roger Williams, who removed from Salem to Rehoboth, and thence to this place. It stands in lat. 41, 51 N. lon. 71, 10 W. at the head of Narragansett bay, on both sides of it, and about a mile above the mouth of the Pautucket, which comes in from the northeast. Ships of almost any size sail up and down the channel, which is denoted by stakes set up on both sides. A short bridge, over a narrow part of the bay, connects both sides of the town. The site of the town west of the bay is a plain, with an indifferent soil. The streets here are level and well paved. On the east side of the bay, there is a single street, nearly on a level with the water, and parallel with it, which is the seat of most of the business. The land back of this street rises instantly at an angle of 12 or 15 degrees, and the other streets have a fine, but incommodious elevation. The houses, west of the bay, are chiefly new, and well built ; the most of the elegant and splendid houses are on the other side. There are 3 churches west of the bay ; 2 for Congregationalists, and 1 for Baptist ; and 4 on the other ; 1 Congregational, 1 Baptist, 1 for Friends, and 1 for Episcopalians, beside which the Roman Catholics have a chapel in the south part of the town. Beside the college, the academy and well supported schools, in this town, the Friends have recently established a boarding school, on a commanding and healthful eminence, and have

erected a spacious building for its accommodation, 52 by 54 feet, 4 stories high. Several of these are among the handsomest edifices of the kind in the union; and the citizens of Providence deserve commendation, for the liberality manifested in their public buildings. The town library is deposited in the court house. The population, in 1790, was 6,380; in 1800, 7,614; and in 1810, 10,071. The commerce of the town is extensive; 14,465 tons of shipping were owned here in 1816. And the inhabitants are industrious and enterprising. There are here two spermaceti works, a number of distilleries and sugar houses, and several large cotton manufactories. The towns in Connecticut and Massachusetts, bordering on the Rhode Island frontier, trade chiefly with Providence. This town is rapidly increasing; the new buildings are erected chiefly on the west side of the bay.

NEWPORT is built on a very fine bay in the southwest part of the island of Rhode Island. It lies in lat. 41, 29 N. lon. 71, 20. The entrance into the harbor, which is one of the finest on the coast, is easy and safe, and a large fleet may lie here at anchor in perfect security. It is defended by three forts, 1 on Goat island, at the mouth of the harbor, where also, the United States' have a military Hospital; 1 north of the town, the other at Brenton's point, 2 miles S. W. of the town. The town lies N. and S. upon a gradual declivity to the water, facing the west, furnishing a beautiful view of the harbor, islands and the neighboring hills on the main. The houses are chiefly of wood, and about 100 in number. They are not distinguished for their elegance. The population, in 1790, was 6,716; 1800, 6,739; and in 1810, 7,907. Newport was formerly the first town in the state; but it has now fallen behind Providence in its population, and far behind it in its business and enterprise. It had, in 1816, 11,383 tons of shipping. The public buildings are 4 Baptist churches, 2 Congregationalist, 1 Episcopalian, 1 Friends, 1 Moravian, 1 for Methodists, and 1 Jewish synagogue; a state house, and an edifice for a public library, of 1,600 volumes. The packets between Newport and New-York, are said to surpass any thing of the kind in Europe. It has one of the best fish markets in the world.

For the safety and convenience of sailing into the Narragansett bay, and harbor of Newport, a light house was erected, in 1794, on Beavertail, at the south end of Canonicut island.

BRISTOL is a thriving town, on the east side of the bay, 15 miles N. of Newport, and the same distance S. of Providence. It has 2,693 inhabitants. It is a pleasant town; has a safe and commodious harbor, and carries on a considerable commerce. It owns about 7,000 tons of shipping. Its public buildings are a court house and jail, an academy, market house, 4 banks, a public library of 1,400 volumes, and 4 houses for public worship, for Episcopalians, Congregationalists, Methodists and Baptists. Like Weathersfield in Connecticut it is distinguished for its culture of onions. The celebrated Mount *Haup.* or *Hope*, is in this town.

WARREN, 4 miles north of Bristol, and 10 southeast of Providence, is a pleasant commercial place, and carries on ship building.

It has 1.775 inhabitants. It has a bank, an academy, and 1 Baptist, and 1 Methodist church.

Roads and Canals.] A turnpike passes from Providence, W. S. W. through Scituate and Coventry, meeting a similar road in Lisbon in Connecticut, which leads through Windham to Hartford. Its length in this state is about 25 miles. Another strikes the Connecticut line south of this, and passes through Norwich, New-London, to New-Haven and New-York. This is the great southern road from Boston to New-York. A turnpike leads from Providence, 4 miles north to the river, meeting there the turnpike to Boston. It is in contemplation to cut a passage across the lower part of the island of Canonicut, through which the tide water already flows, for the passage of steam boats, and to connect this work with a new turnpike road from the south ferry, in S. Kingston, or from Wickford direct to N. London. A canal is contemplated to connect the head waters of East River, which passes through the state, with Boston Bay, a work which would be of great importance and utility. These works would be important not only to the state, in a commercial and agricultural view, but especially so to the U. States, in view of the great naval establishments, which probably may be formed on some part of the waters of Narragansett Bay. Most of the roads are very much neglected.

Bridges.] The bridge across the bay at Providence is 160 feet long, by 50 wide, and is very well built. A bridge is thrown over Pautucket river, at the falls; another, called Central bridge, 4 miles below; and another, called India bridge, 1 mile still lower. A draw bridge was erected over Howland's ferry, between Portsmouth and Tiverton, in 1795. It is 900 feet by 36, and has 42 piers. The greatest depth of water, is 51 feet, at low tide. This bridge was carried away in 1797, and another connecting the island with Tiverton, was completed in 1809. It was made by dropping vast quantities of stones of all dimensions into the water, till a bank was raised above the surface of the highest tide. In this way the whole passage was filled, except the channel. On this sure foundation the bridge was erected.

Manufactures.] In 1809, 17 cotton mills were in operation within the town of Providence and its vicinity, working 14.296 spindles, and using 640.000 pounds of cotton, which yielded 510,000 pounds of yarn. About 1100 looms were employed in weaving. At that time 7 additional mills were erecting in the vicinity of the town. One was in operation in East Greenwich with 500 spindles. The cloths manufactured were bed ticking, stripes and checks, ginghams, shirting and counterpanes. They are superior to imported goods of the same kind. There was then a woollen manufactory in Warwick, and another at Portsmouth. About 50.000 hats were then made annually worth \$5 each, exclusive of felt hats. A number of paper mills are established. Linen and tow-cloth are made extensively, as well as rum, cards, chocolate, and the coarser manufactures of iron. At North Providence, in 1796, there were erected, on the Pautucket, 3 anchor forges, 1 slitting mill, 2 machines for cutting nails, 1 tanning mill, 1 oil mill, 3 snuff mills, 1 grist mill, 1 cotton

manufactory, 1 clothiers works, and 3 fulling mills. They all go by water. The value of the manufactures of this state, according to the returns to the secretary of state, in 1810, was \$4,106,074. The amount was estimated to be one third more in 1813. The cotton branch of manufacture is considered as valuable as the cotton branch was in any part of Europe, 30 years ago. If each state in proportion to its population, should make a quantity of cloths and stuffs for clothing and furniture, equal to what was manufactured in Rhode Island in 1810, the whole amount would have been 243,000,000 yards, according to the Marshal's returns, which he considered much less than the real quantity.

Banks.] There are no less than 31 banks in this small state, 7 of which are in Providence, 5 at Newport, and 4 at Bristol. The rest in all the principal towns in the state.

Trade.] The chief exports from Rhode Island are flax seed, lumber, horses, cattle, beef, pork, fish, poultry, onions, butter, cheese, barley, grain, spirits, and cotton and linen goods. Upwards of 600 vessels enter and clear annually at the several ports. In 1804, the amount of exports was \$1,735,671, and in 1810, \$1,331,576 in 1816, 612,794. The inhabitants, particularly those of Newport, and Bristol, were a little while since, largely concerned in the slave trade. This was done in defiance of the laws of the state; and there is strong reason to believe that the severe penalties of the national law have not terminated this inhuman traffic.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE, FACE OF THE COUNTRY, SOIL AND AGRICULTURE, RIVERS, BAYS, MOUNTAIN, ANIMALS, MINERALOGY, CURIOSITY, ISLANDS.

Climate.] THE climate is probably as healthy as any that is known. It is somewhat more damp than that of Connecticut, as the moist winds of the ocean that visit the latter, lose part of their dampness in passing Long Island. The winters are here a little milder, but the N. E. winds are more unpleasant, though less so than on the eastern coast. The summers are delightful.

Face of the Country.] The N. W. part of the state is hilly and rocky, and the hills continue, though with a small elevation, through the northern third of the state. The rest of the country is chiefly level.

Soil and Agriculture.] A large proportion of the land is lean and barren. It is generally much better fitted for pasture, than for grain. It produces, however, maize, rye, barley, oats, and in some

places wheat enough for home consumption. Cider of an excellent quality is made for exportation ; chiefly in Cranston, Johnston, and Smithfield. The five western towns in the county of Washington, called the Shannock purchase, are an excellent grazing country, and are inhabited by a number of large and wealthy farmers. They export great quantities of butter and cheese of the very best quality, and their neat cattle weigh from 16 to 18 cwt. The northwest parts of the state are thinly inhabited, and are the most rocky and barren.

Rivers.] Pautucket river issues from Quinsigamond pond, in Worcester county, and runs S. E. and for a short distance S. W. about 50 miles, emptying into Providence bay, about a mile below the bridge. The fall in this river at Rehoboth, 6 miles from its mouth, is in all, upwards of 50 feet. The principal branch is Clear river. Wood river rises in West Greenwich, and in Charleston receives Charles river, from Warden's Pond. The united stream flowing W. beyond the line, receives Shannock river from the N. and then takes the name of the Paucatuc, and for 7 miles forms the Connecticut boundary ; emptying into Stonington bay, after a course of about 40 miles. Pautuxet river rises in Gloucester, and running S. E. in Warwick, is joined by the S. W. branch. It thence runs N. of E. to Providence bay, emptying 5 miles below the town. Its length is about 30 miles. The Waraspautucket, and the Mashasuc fall into Providence bay above the town. On the former numerous mills are erected.

Bays and Ponds.] Narragansett bay has been described. Mount Haup bay is the N. E. extremity of it, and is about 5 miles long and 3 wide. Providence bay sets up 15 miles N. N. W. from Narragansett bay, and is from 1 to 3 miles wide. Greenwich bay is the N. W. end of Narragansett bay.

There are a number of small ponds in Washington county, as well as in other parts of the state.

Mountain.] Mount Haup, on the west side of the bay of that name, was once the capital of the Wampanoags, and the residence of Philip. It is an inconsiderable eminence.

Animals.] The country S. of Pautuxet river has been famous for a peculiar breed of horses, called the Narragansett breed. They were not handsomely shaped, but were distinguished for their speed, and their capacity of enduring fatigue. They were all natural pacers and had generally also the single-footed trot, and the square trot. No horses can be found so easy under the saddle. The breed is now generally depreciated, and many of the best mares have been purchased by the people from the westward.

Mineralogy.] Iron is found in great plenty in several places. There is a mine in a valley near Pautuxet river about 12 miles from Providence. A steam engine is employed to clear it from water. In Cumberland, near Diamond hill, there is a mine of copper mixed with iron ore, that is strongly magnetic. Limestone is found in great abundance in Providence county, of which large quantities of lime are made, and exported to the other states. A

valuable coal mine has lately been found on the north end of Rhode Island.

A mineral spring near Providence is much resorted to.

Curiosity.] In Middleton, on the shore 2 miles N. E. from Newport, is a place called Purgatory. It is a large cavity in a high bed of rocks, about 12 feet diameter at the top, and 40 feet deep before it reaches the water, which has a great depth.

Islands.] Rhode Island, from which the state takes its name, is 15 miles long, and on an average $3\frac{1}{2}$ broad, containing about 52 square miles. It includes 3 townships, Newport, Middleton, and Portsmouth. Its soil, climate, and situation, are delightful. It suffered much during the war. Between 30,000 and 40,000 sheep are fed on the island, besides neat cattle and horses.

Block Island, or *Munesses*, is 7 miles south from Charlestown and 21 E. by N. from Montauk. It is 7 miles long and 4 broad, containing 20 square miles. It composes the town of New Shoreham has 722 inhabitants, and is famous for its cattle and sheep, butter and cheese. Codfish, in considerable numbers, are caught on its coast.

Canonnicut lies E. from Rhode Island, and is about 10 miles long, containing 10 square miles. It forms a township, called Jamestown, with 504 inhabitants. The soil is luxuriant.

Prudence Isle, N. of Canonnicut, comprises about 5 square miles.

CONNECTICUT.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT, BOUNDARIES, DIVISIONS, NAME, ORIGINAL POPULATION, HISTORY, RELIGION, GOVERNMENT, POPULATION, MILITIA, REVENUE, BANKS, MANNERS AND CUSTOMS, LITERATURE, CHIEF TOWNS, ROADS, BRIDGES, MANUFACTURES, COMMERCE.

Extent.] THE divisional line between Connecticut and Massachusetts, as settled in 1713, was found to be about 72 miles in length. The line dividing Connecticut from Rhode Island, was settled in 1728, and found to be about 45 miles. The sea coast, from the mouth of Paukatuc river, which forms a part of the eastern boundary of Connecticut, in a direct southwesterly line to the mouth of Byram river, is reckoned at about 90 miles. The line between Connecticut and New-York, runs from latitude 41° to lat-

itude 42, 2, 72 miles. Connecticut contains about 4,674 square miles; equal to 2,991,360 acres.

This state lies between lat. 41° and 42, 3 N. and between lon. 71 29 and 73, 24 W.

Boundaries.] Bounded N. by Massachusetts; E. by Rhode Island; S. by Long Island sound; W. by New-York.

Divisions.] This state is divided into 8 counties, bordering on Massachusetts, and 4 on the sound; which are subdivided into 119 townships.

Counties.	No. of towns.	Population.	Chief towns.	No. of inh.
Hartford	18	44,733	Hartford	6,003
*New-Haven	17	37,064	New-Haven	6,967
*New-London	13	34,707	New-London	3,238
*Fairfield	17	40,950	Fairfield	4,125
Windham	15	28,611	Windham	2,416
Litchfield	22	41,375	Litchfield	4,639
*Middlesex	7	20,723	Middletown	5,382
Tolland	10	13,779	Tolland	1,610
<hr/> Total 119		<hr/> 261,942		

Name.] The name of the state is derived from Connecticut river, a Moheakanneew word, signifying *long river*. In the earliest records the name is written *Quonehtacut* and *Quonehtiquot*.

Original Population.] The most powerful and warlike aborigines of Connecticut, when the state was settled, were the Pequods. They were originally an inland tribe, but fought their way to the seaside, and at that time occupied Waterford, New-London, Groton, and Stonnington, and appear to have ruled all that part of the state which is east of the Lyme range of mountains. Sassacus was their sachem. He had 26 sagamores under him. His principal fort was on a commanding and beautiful eminence in Groton, a few miles southeasterly from fort Griswold. The tribe numbered about 700 warriors. The harbor of New-London was called Pequod harbor.

The Moheagans lay north of the Pequods, and had a much greater extent of country. They reached nearly to the north line of the state and bounded west on the Wongungs and Podunks. Uncas, their sachem, was a brave, cunning man, and never quarrelled with the English. At that time they were tributary to the Pequods. The Nehantics occupied Lyme. They bounded north on the Wongungs in East-Haddam and Chatham. The Podunks about East-Hartford had 200 bowmen. The river Indians occupied Windsor, Hartford, Weathersfield, and Middletown. They were very numerous. The number of warriors in Windsor alone in 1670, was estimated at 2000, who belonged to 10 different tribes. Those of Hartford were then numerous. Sowheag, the most powerful of their sachems, lived at Middletown. His sachemdom also included Weathersfield. The Nipmuks were north of the Moheagans, and

* Those with this mark (*) border on the sound, the others on Massachusetts.

subject to them. Their chief seat was about the great ponds in Oxford, Massachusetts; but their territory reached south into Connecticut, more than 20 miles. In Simsbury, Farmington, and East-Hartford, the natives were numerous. The tribes in New-Haven, Fairfield, and Litchfield counties, had each the name of their town, and appear not to have been united. The whole number of Indians was probably between 35 and 40,000.

History.] A house was erected by the Dutch, at Hartford, in 1635; and another at Windsor, by William Holmes, from the Plymouth colony, in October of the same year.

A settlement was made at Windsor and Hartford by a small colony from Massachusetts; and another at Saybrook, by a company from England, in 1635.

The first court was held at Weathersfield in 1636. The next year a war began with the Pequods, which terminated in the conquest of their country.

In 1638 New-Haven was settled by a colony from England under Theophilus Eaton.

The next year (1639) the constitution of the Connecticut colony was formed; and a few months afterwards, that of the New-Haven colony. The charter of Connecticut colony was granted by Charles II. in 1662, into which the substance of the two original constitutions was incorporated; and, in 1665, the two colonies united.

In Dec. 1675, a body of 300 English and 150 Indians, marched from Connecticut into the country of the Narragansetts, destroyed their principal fort, and subdued the tribe.

An attempt was made in 1687, by Sir Edmund Andross, to seize the charter of the colony, but the wisdom and courage of the legislature rendered it abortive.

The assembly, which, till 1698, had sat in one house, was then divided into two.

In 1708, the Saybrook platform was received and adopted as the ecclesiastical constitution of the state.

The most important expedition against the state, in the revolutionary war, was made from New-York, by Gov. Tryon, in 1779. He burnt several towns and plundered others. No state in the union was more active in that war than Connecticut, or contributed more to its successful termination.

The assembly, at the close of the war, continued the charter of Charles II. as the constitution of the state.*

In 1818, a new Constitution was formed.

Religion.] The following table will exhibit the state of the several religious denominations of Christians in Connecticut, in 1811; the first number in each column denoting the number of churches, the second of the clergy of the several denominations.

* The history of this state has been written and published with great fidelity by Rev. Benjamin Trumbull, D. D. down to the year 1764, in 2 vols. 8vo.

Counties.	Congregationalists.		Episcopalians.		Baptists.	
Hartford	35	32	8	4	13	5
New-Haven	34	32	14	10	2	0
New-London	21	13	3	2	15	12
Fairfield	29	20	16	5	8	7
Windham	28	20	2	1	14	11
Litchfield	32	31	13	6	9	4
Middlesex	17	17	6	3	5	4
Tolland	15	11	2	1	1	1
Total	211	176	64	32	67	44

There are but 12 churches and 7 ministers of other denominations in this state.

In 1818, there were 213 Congregational, 69 Episcopalian, and 70 Baptist churches in this state.

The Episcopal congregations average about 40 families, or 250 individuals. The Baptist congregations are about equally large. The number of Congregationalists is at least 220,000; their congregations averaging upwards of 1000 individuals, or 160 families. The first Episcopal church was founded at Stratford, in 1722. Previous to that time there had been no denomination in the state but the Congregationalists. The Episcopal churches are now formed into a diocese, superintended by a bishop.

As to the mode of exercising church government and discipline in the Congregational churches, it may not improperly be called a republican religion. It is prescribed in their platform of church discipline, formed in 1708, and called the Saybrook Platform. Each church has a separate jurisdiction, and claims authority to choose its own minister, to exercise judgment, and to enjoy gospel ordinances within itself. The churches, however, are not independent of each other; they are generally consociated for mutual benefit and convenience. The associations have power to license candidates for the ministry, to consult for the general welfare, and to recommend measures to be adopted by the churches, but have no authority to enforce them. When disputes arise in churches, councils are sometimes called by the parties, to settle them, whose power is only advisory; but the consociation is the tribunal to which disputes are commonly referred. There are 12 associations in the state, and they meet twice in a year. These are all combined in one general association, formed in 1709, consisting of delegates from the several associations, who meet annually. Liberty of conscience, in its full extent, is enjoyed in Connecticut.

Government.] The charter of Charles II. contained the constitution of the state till 1818. Till this period the legislature was styled the *General Assembly*, and was composed of a council and house of representatives. The council consisted of the governor, lieutenant governor, and 12 assistants. The governor presided, and had a vote, and a casting vote. They were all chosen annually in April: the two first directly from the mass of the people; the assistants from a nomination of 20, which was filled up the people in the preceding

October. Every freeman was eligible to either of those stations. The house of representatives, consisted of 199 members, was chosen twice a year; 80 towns sending two representatives, and 39 sending but one.

The new constitution does not materially alter the staminal principles of the former, but reduces these principles, which had hitherto existed in laws and habits, to the customary form of a constitution.

The judiciary is composed of a supreme court of errors, consisting of 9 judges, meeting twice a year at Hartford and New-Haven; of 3 superior, or circuit courts, each consisting of three of the nine judges, who ride the three circuits alternately, and hold a court in each county, twice a year; of a county court in each county, consisting of 1 judge and 4 justices of the quorum, and sitting in 4 of the counties three times a year, and in the other four twice; of a city court in the 5 cities, consisting of a mayor, and 2 aldermen, and sitting monthly; of a probate court in each of the 28 probate districts, consisting of 1 judge, and sitting whenever the judges direct; and of justices courts, consisting of a single justice of the peace.

This government, as it stood before the year 1818, had been in operation more than 170 years, and was the most strictly democratical of any in the union, and was probably the firmest on the globe, as it was founded on the habits and affections of the people. Every public officer was appointed every year, or held his office during pleasure; yet not an instance can be mentioned of turning a man out of office, except for supposed misconduct. The council, also, were equally secure of their places; and vacancies that happened in it by death or resignation, were filled up out of a nomination, which had been voted for several years by all the freemen. It is a singular fact that but one governor, or lieutenant governor, whom the people had once elected, was ever left out by them, but at his own request.

Population.] In 1671 Connecticut contained 2050 men, or about 10,250 inhabitants, and in 1679, 2507 men, or 12,535 inhabitants. The number of inhabitants was in the year

1756	{ 128,218 whites 3,587 blacks }	131,805	1790	{ 232,374 whites 2,764 slaves 2 808 free bl. }	237,946
1762	{ 141,076 whites 4,590 blacks }	145,666	1800	{ 244,721 whites 951 slaves 5,330 free bl. }	251,002
1774	{ 191,392 whites 6,464 blacks }	197,856	1810	{ 255,179 whites 310 slaves 6,453 free bl. }	261,942
1782	{ 202,597 whites 6,273 blacks }	208,870			

The items of the census of 1810, were as follows:

	males.	females.	total.
Under 16 years of age	58,310	54,844	112,154
Between 16 and 45	47,579	51,266	98,845
45 and upwards	20,484	22,696	43,180
Total	126,373	128,806	255,179

This is the most populous district of its size in the union, except Massachusetts Proper. Were it not for the emigrations into the other states, the population of Connecticut would increase with a rapidity almost unrivalled. The excess of the number of births over that of deaths is probably greater than in any country in the world. One fourth part of the pre-ent population of the state of New-York is supposed to consist of emigrants from Connecticut, or their immediate descendants; and the whole number of persons annually emigrating into that and the other states from Connecticut, is supposed to amount to from 12 to 15,000.

Militia.] The militia of this state amounted, in 1818 to 20,593, who are organized in four grand divisions, each embracing two brigades, 8 in the whole, which are subdivided into upwards of 30 regiments, of which 8 are cavalry. They have the usual proportion of artillery. The militia are well officered and disciplined, and, being composed of freemen and landholders, would be formidable to any assailants of their rights.

Revenue.] The revenue of 1811 was as follows :

Tax on rateable estate and on polls	\$46,674 70
Interest on stock in U. S. funds	16,437 19
Dividend on bank stock	9,788 20
Duty on writs, &c.	6,291 98

\$79,192 07

The funds of the state, exclusive of the school fund, were in October, 1811, as follows :

Six per cent stock (real capital)	127,153 23
Six per cent deferred stock (real capital)	115,480 65
Three per cent stock (real capital)	50,038 06
Bank stock	129,200 00

\$421,871 94

This sum, added to the school fund, makes a sum total of \$1,622,537 77.

The state owes no debt of any kind whatsoever.

Banks.] There are 11 banks in the state. In Hartford, New-Haven, New-London, and Middletown, 2 each; in Norwich, Bridgeport and Derby, each one.

Manners and Customs.] The inhabitants are, almost to a man, of English origin. Their ancestors emigrated from England to enjoy the blessings of civil and religious liberty. They were men of enlightened minds, and irreproachable lives. They founded the colony amid many discouragements and dangers, bravely resisted all the attempts of power to wrest from them their charter, and established a series of political, literary, and religious institutions, probably, inferior to none ever devised by man. These institutions have produced a happy state of society. There are few rich men and very few who are poor. The great body of the inhabitants possess moderate property. Most of the inhabitants are farmers, with farms of from 50 to 500 acres; who hold their lands

in fee simple. All the male inhabitants, arrived to manhood, probably, without exception, can read, write, and cast accounts; great numbers of them have had a collegiate, and much greater numbers an academical, education. A church is planted within a little distance from every man's door; and a very great majority of the inhabitants attend public worship twice every sabbath. The bible is possessed by every family, and by every individual in many families: it is no where more read, or more regarded. The state has always enjoyed a pious and enlightened clergy; a clergy, whose average attainments have not been inferior to those of the clergy of any other community; and who have uniformly maintained a christian and happy influence over the public sentiment and character. The great doctrines of the reformation have always been held by the clergy and people, and a singular degree of harmony has prevailed both in doctrine and discipline. There is no country on the globe in which such a mass of useful information is so generally diffused among the great body of the inhabitants. Wealth here confers less distinction, than in most places, and is no passport to office or honor. Neither of these is accessible to him who appears to be seeking for them; and the disgraceful practice of a man's offering himself to the freemen, as a candidate for office, has never been introduced. The inhabitants are generally liberal, but not profuse; hospitable, but not luxurious. Their houses, equipage, food, and dress are good, but plain and simple. Their amusements consist chiefly in reading, visiting, dancing, riding, and various athletic exercises. The theatre has few friends in this state. Horse racing and cock fighting are effectually forbidden; and tavern haunting is little practised. The good order of the people on public occasions is singular; particularly at city, town, and freemen's meetings, and at military reviews. Most of the inhabitants pass through life without ever seeing two men engaged in fighting. Every parish bell rings at 9 at night to call the inhabitants home, throughout the year; and very few disobey the summons. Disorders in the night season are very uncommon. Capital punishments are not inflicted oftener than once in 8 or 10 years; and mild laws are found sufficient to restrain the commission of smaller offences. Only two duels were ever fought in the state; the first between two West-Indians, the second between two citizens of New-York, who crossed the line. The only disgrace on the character of the state is its law of divorces, which was passed in 1667; and permits them, for 3 years wilful desertion. It was intended merely to take effect in cases of long and entire neglect, and of extreme unkindness; and for about a century, operated only in such cases. But, since that time, it has gradually prompted to the very desertion which it was intended to punish. If a married couple wish to be separated, they can, in three years, accomplish their purpose without difficulty. Divorces are now very common, and are often the result of a mutual understanding. With this exception the public morals are unusually correct. The intercourse between the sexes, though familiar and

friendly, is generally free from reproach; and in no part of the world, are the females more strictly chaste and virtuous, or treated with more delicacy and respect.

Literature.] YALE COLLEGE was founded by a number of clergymen, in 1701, and had its charter in 1702. It was named after ELIHU YALE, Esq. of London, governor of the East-India company, who was its principal early benefactor. It was originally fixed at Killingworth, afterward removed to Saybrook; and thence in 1717, to New-Haven. Its legislature is a corporation, consisting of the president of the college, who is also president of the corporation, the governor of the state, the lieutenant governor, and six senior assistants, *ex officio*, and ten fellows, who are all clergymen; who, with the president fill up their own vacancies. Other powers are possessed by all the members of the board in common. The corporation meet annually. A committee of three or four members, of whom the president *ex officio* is one, is appointed by them, every year, to superintend the concerns of the institution. This committee meets four times a year. The immediate government and instruction of the students is committed to the president, to a professor of divinity, of mathematics and natural philosophy, of chemistry and mineralogy, and of languages and ecclesiastical history, and to 6 tutors. The number of students (1812) was 305, in 1818, 283. They are divided into 4 classes. The senior class recites only to the president, and, with the junior, attends the lectures of the professors. The three lower classes are divided each into two divisions, and each of the divisions is committed to its own tutor, who has the sole instruction of it. The library contains 7 or 8000 volumes, and has a fund yielding about \$200. The students have libraries amounting to 2500 more. The philosophical and chemical apparatus are very handsome, and are complete. The chemical laboratory is the best in the union. The college possesses a very handsome mineralogical cabinet, containing about 2500 specimens; and, in 1811, two cabinets, one consisting of more than 6000 choice specimens, and the other of about 18,000, the two noblest collections ever opened in the United States, were deposited in this seminary by Col. Gibbs of Boston. This respectable stranger has been invited by the corporation to deliver lectures on his favorite science. The academical buildings consist of three colleges, each 4 stories high, and 104 feet by 40, all standing in a line, fronting S. E. and containing 96 convenient chambers; a chapel, having in the third story, a philosophical chamber and rooms for the philosophical apparatus; a lyceum, resembling the chapel in form, and containing a chemical laboratory, and its appendages, 7 large recitation rooms, two chambers, and a library; and a large dining hall and kitchen in the rear of the other buildings. The chapel and lyceum are between the colleges, and project beyond them. A medical institution was established in the seminary in 1813. It consists of 4 professorships, of the materia medica, of anatomy and surgery, of the theory and practice of

physic and of chemistry. It has about 60 students. The funds of the college are small.

Bacon academy, in Colchester, was founded, in 1801, by Mr. Pierpont Bacon of that town, who bequeathed it \$30,000. It is a very flourishing institution, and has annually about 90 scholars.

An Episcopal academy was founded at Cheshire, about 1799. The legislature granted it, by lottery, \$15,000. It has about 60 students, and is flourishing.

There are seminaries of the same kind at Canterbury and Plainfield, and academic schools at Fairfield, Danbury, Litchfield, Ellsworth, Windsor, Hartford, Norwich, Plainfield, New London, Woodstock, and various other places. Great numbers of the students of Yale college are prepared for it in the families, and by the instruction of clergymen.

The state has a large fund called the school fund, under the direction of a commissioner, amounting, in October, 1811, to \$1,201,065:83, and in 1818, to \$1,608,673. It is the avails of lands formerly belonging to the state, and sold by them, in 1795, to a company of speculators. The yearly interest, together with \$12,000 from the public taxes, is annually devoted to the maintenance of common schoolmasters. The share of each town is proportioned to its amount on the grand list. The whole amount paid to the towns from this school fund, in 1818, was \$70,914, and the amount of the state tax paid in 1817, was \$48,362:34, the income of the fund exceeding the amount of the tax, by \$22,551:80. This probably is the only government in the world that gives to its subjects, more than they pay to the treasury. Each town is divided into two or more school districts. A committee in each has the regulation and the superintendency of all the common schools within its limits. This committee is chosen by the inhabitants of the towns.

Cities and Towns.] In Connecticut there are 5 incorporated cities, viz. New-Haven, Hartford, New-London, Norwich, and Middleton.

NEW-HAVEN city, the Indian *Quinnipiack*, and the largest in the state, is situated at the head of a harbor, which sets up from Long Island sound about 4 miles, and is 424 rods wide. It is well defended from winds, but is extremely shallow, and gradually filling up by the deposits of the three rivers which flow into it, and the accumulation of harbor mud. Over a bar at the mouth there is 7 feet water, and a depth every where in the channel, except on this bar, of 15 feet. From the head of the harbor a wharf runs out 3943 feet, and is far the longest in the union. The town is built on a plain, which extends E. N. and W. from it about 2 miles, where it is limited by mountains and hills of every variety of form. The soil of this plain is not naturally fertile, but cultivation has rendered it productive. The city covers about a square mile. It consists of two parts, the Old and the New township. New-Haven was originally laid out in 9 squares of 52 rods on a side, separated by streets 4 rods in width, and forming one large square, 172 rods on a side. Many of these have been since subdivided by cross streets into four smaller squares, and the remainder, with a single excep-

tion, into two parallelograms. The streets are of course at right angles, and are kept very neat and clean. Several of them have a handsome row of elm trees on each side. The central square is an open green, and is a very beautiful public walk. The houses, in 1811, were 750 in number, of which 314 were built on the streets forming the squares. This number has considerably increased since. They are chiefly of wood: few of them are mean, and few of them are expensive, but they are generally neat. The public edifices are the collegiate buildings of brick, on the N. W. side of the green, extending about 40 rods in length, and built in a simple, but handsome manner; 4 handsome churches; 2 Congregational, 1 Episcopalian, and 1 Methodist; a handsome state house and jail; 3 neat school houses, and an alms-house. There are here 15 public schools and 8 private ones. The population of the township, in 1790, was 4,484, in 1800, 5,157; and in 1810, 6,996. That of the city, in 1787, was 3,530, in 1798, 4,000; in 1800, 4,049; and in 1810, 5,772. The state of society in this town is uncommonly agreeable. Few towns of the size can boast of so large a collection of citizens possessing refined manners and cultivated minds. The commerce of the town is chiefly with New-York and the West-Indies. The capital steadily employed in commerce exceeds \$2,500,000. The exports, in 1806, amounted to \$466,367, besides half as much more shipped at New-York; and the number of tons of shipping, in 1800, to 11,011, and 1816, to 12,439. The exports consist principally of flour, cattle, fish, Indian meal, beef, candles, butter, hams, pork, cheese, lard, leather, hoops, staves, and oats. In the north corner of the town a new burying ground has been laid out on a plan entirely new. The field is divided into parallelograms 200 feet by 64; which are subdivided into family burying places, each 32 feet by 18. The parallelograms are separated by alleys about 20 feet wide. The ground is planted with trees, and makes an uncommonly pleasant and interesting appearance, and well calculated to diminish the gloom of the grave.

HARTFORD city, the second in size in the state, and its capital, lies on the west bank of Connecticut river, 50 miles from its mouth, in the midst of a very pleasant and fertile country. The city is divided by a small stream called Little river. Most of the houses lie north of this stream. A bridge over it connects the two parts of the city. The houses stand chiefly on a single street, parallel with the river, and about 60 rods from it. Most of the other streets, cross this at right angles. The public edifices are a very handsome state house; 2 Congregational churches, one of them of brick, and amongst the most elegant in New-England; 1 Episcopalian, and 1 Baptist; and a handsome bank. About half the houses are of brick, many of them 3 stories, and well built. Their whole number is upwards of 600. The population of the whole township, in 1800, was 5,347; and in 1810, 6,003; that of the city, in 1810, was 3,995. Hartford is advantageously situated for trade, has an extensive, fertile, and thrifty back country, and is a flourishing, commercial place. It has several large distilleries, and a variety of manufactures. In June 1816, an Asylum for the deaf and dumb was established in this

city, an institution of great interest and usefulness, which has been patronized by the state, and national governments, as well as by private individuals. Its funds are becoming respectable. The house occupied by the school is very pleasantly situated, half a mile W. of the city. Ten directors, annually chosen, have the management of this Asylum, which has (1819) 50 pupils, under the care and tuition of a principal, and 4 assistants. No persons over 30, or under 9, are admitted into the Asylum. The pupils are remarkably happy, and make wonderful progress in knowledge.

NEW-LONDON stands on the west side of the Thames, 3 miles from its mouth. The river is here a mile wide. The city is defended by a little fort, called fort Trumbull, about half a mile below the city. The river forms a large, safe, and commodious harbor, and has 5 fathoms water. The city contains one Congregational, 1 Episcopalian, and 1 Baptist church, and about 500 houses. Its population in 1810, was 3,238. Its trade is considerable. It owns 14,685 tons of shipping. The fishery in this harbor is excellent.

NORWICH is 14 miles north from New-London, and at the head of navigation on the Thames. The city contains a court house, two Congregational churches, one for Episcopalians, 1 for Baptists, and 1 for Methodists; and 3,238 inhabitants. There are numerous mill seats in the township, and various manufactures are carried on here to some extent, particularly of paper, flour, stockings, clocks and watches, chaises, buttons, stone and earthen ware, wine, oil, chocolate, bells, and anchors. The city is in three compact divisions, the Landing, the Town, and Bean hill.

MIDDLETON, the Indian *Mattabesic*, is on the west bank of Connecticut river, 15 miles south from Hartford. The city has two Congregational churches, 1 for Episcopalians, 1 for Baptists, and 1 for Methodists; and has a considerable trade. In 1810, the city had 2,014 inhabitants, and the townships 5,382. The country around Middleton is uncommonly handsome. It had, in 1816, 19,499 tons of shipping.

Danbury, Bridgeport, Litchfield, Weathersfield, Farmington, and various others are also flourishing and handsome towns.

Roads.] In 1808, 50 turnpike companies had been incorporated to lay out as many roads in this state. At that time, 39 of them, extending 770 miles, were completed. The most expensive, that from Hartford to New-Haven, 34 miles, has cost upwards of \$80,000. The others of most importance are the road from New-Haven to Litchfield, 36 miles, and in continuation from Litchfield to the north line of the state, 24 miles; that from New-Haven to Derby, 8, and in continuation to New-Milford, 24; that from New-Haven to Farmington, 30; and the roads from Hartford to Litchfield, 28, to Sheffield, 34, to Stafford, 29, to Thompson, 50, to Sterling, 48, and to Norwich, 40 miles. The common roads in the state are generally good.

Bridges.] The most considerable bridge in this state is that over the Connecticut at Hartford. It is supported by 3 arches, and is very handsomely built. Good judges pronounce it sufficiently

firm to resist the power of the freshets. A bridge has been lately built over the Housatonnuc at Stratford.

Manufactures and Inventions.] The farmers in Connecticut, and their families, are mostly clothed in plain, decent, homespun cloth. Their linens and woollens are manufactured in the family way; and although they are generally of a coarser kind, they are of a stronger texture, and much more durable than those imported from Great-Britain and France. Many of their cloths are fine and handsome.

Mr. Chittenden of New-Haven, about the year 1784, invented a useful machine for bending and cutting card-teeth. This machine is put in motion by a manderil twelve inches in length, and one inch in diameter. One revolution of the manderil makes one tooth; 36,000 are made in an hour. With one machine like this, teeth enough might be made to fill cards sufficient for all the card manufactories in New-England.* In New-Haven are linen and button manufactories; and a cotton manufactory, lately established on a large scale. In East-Hartford are glass works, a snuff and powder mill, and iron works, and a slitting mill. Iron works are established also at Salisbury, Norwich, and other parts of the state. At Stafford is a furnace at which are made large quantities of hollow ware, and other ironmongery, sufficient to supply the whole state. Paper is manufactured at Norwich, Hartford, New-Haven, and in Litchfield county, and in various other places. Nails, of every size, are made in almost every town and village in Connecticut; so that considerable quantities can be exported to the neighbouring states, and at a better rate than they can be had from Europe. Ironmongery, hats, candles, leather, shoes and boots, are manufactured in this state. Oil mills, of a new and very ingenious construction, have been erected in several parts of the state. The manufacture of tin plates into culinary vessels, is one of the most useful in this state. It is estimated that plates and iron wire, to the amount of \$250,000, are used in this manufacture annually, and the tin ware thus made is sold in all parts of the United States, in Florida, Louisiana, and Canada. Metal buttons, to the amount of more than \$100,000, have been manufactured at Waterbury and other places; and wooden clocks, to an equal amount, in different parts of the state.

In Humpbreysville a woollen manufactory has been established on a large scale. The cloth which is made here we understand is of a superior quality. Much credit is due to the late Colonel Humphreys for the introduction of the Merino breed of sheep, and for his other exertions in promoting the manufactures of his country. The value of the manufactures of this state in 1810, as returned to the secretary of state, was \$7,771,928. The marshal, who made these returns, represents, in 1813, that, "there are constant additions to the number and capital of the manufactures in this state."

Mr. Whitney has established in New-Haven a manufactory of fire arms. It stands upon Mill river near the northern boundary of the town. The machinery connected with this establishment is ingenious and peculiar. Many parts of it, we understand were in-

* This machine has since been much improved.

vented by Mr. Whitney. It is to the ingenuity of this gentleman, that the world are indebted for the invention of the machine for cleansing upland cotton, from its seeds, which has already been mentioned.*

Mr. David Bushnel of Saybrook distinguished himself during the revolutionary war, by the invention of various machines designed to annoy the British shipping. The ingenuity of his contrivances have excited the admiration of those, who are skilled in mechanics. Mr. Culver of Norwich is the inventor of an ingenious machine for the clearing of docks and removing bars in rivers. Its good effects have already been experienced in deepening the channel of the Thames, and promises to be useful to navigation throughout the United States.

Commerce.] There are five ports of entry in Connecticut; Fairfield, New-Haven, Middleton, New-London, and Stonington. The amount of exports in 1804, was \$1,516,110; in 1810, \$768,643. This was a *non-intercourse* year. In 1817, \$604,139,—viz. \$574,290, Domestic; \$29,849, Foreign. Almost all the produce of the western part of the state is entered at the New-York custom house; and the exports in the coasting trade are greater than those in the foreign trade. The commerce of the state is chiefly with the West-Indies, and with the other states. The exports consist of horses, mules, oxen, oak staves, hoops, pine boards, oak plank, and timber, butter and cheese, Indian corn, beef, fish, cider, pork, flax seed, leather, candles, pot and pearl ashes. In 1800, this state owned 32,867 tons of shipping, and in 1816, 53,648 tons.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE, FACE OF THE COUNTRY, SOIL AND AGRICULTURE, RIVERS, MOUNTAINS, BOTANY, ANIMALS, MINERALOGY.

Climate.] NO climate is probably more healthy than that of Connecticut, and few more favorable to longevity. The winters are generally severe; on the shore the weather is variable, in the interior it is cold but serene. The greatest cold ever known was 10° below 0 of Fahrenheit. The summers are generally mild. Usually there is about a fortnight or 3 weeks of very hot weather, but the mercury has rarely risen above 91° of Fahrenheit; and in ordinary summers, it does not exceed 84°. The snow, except on the shore, commonly remains on the ground about 3 months, and the rivers are frozen during the same period. The S. W. wind is the most prevalent, and the warmest. After blowing 3 or 4 days it usually brings rain. The N. W. wind is cool, dry, and in a high degree refreshing. It communicates elasticity to the air, and activity to the

* See page 237.

animal spirits. The N. E. wind is damp, raw, and tempestuous. Most of the violent storms come with this wind. On the coast, 40 years ago, a land and sea breeze was a regular occurrence in summer ; now it is only occasional.

Face of the Country.] The shore of this state is every where indented with small bays and harbors. The whole country is remarkably well watered both with large rivers and with brooks. But a small part of the state is mountainous ; and but little of it is level. The great body of it is hilly. The hills are generally of moderate size, and occur in quick succession, furnishing the traveller with an ever-varying prospect. These hills are productive ; and, unless forested, are devoted to tillage, or to mowing and pasturage. The natural green of the Connecticut landscape presents a fine contrast to the unwilling verdure here and there forced from the southern soil. All the mountains are covered with forest trees. The three most extensive level tracts are that along the shore, and the valleys of the Connecticut and the Quinebog.

Soil and Agriculture.] The township of Waterford, west of New-London, is the poorest tract in the state. The next to this is the township of New-Haven, and a part of some of the adjoining towns ; yet, in this last, with good husbandry, wheat has yielded 40 bushels, rye 28, barley 45, maize 85, oats 60, flax 620lbs. and grass 4 tons to the acre.* The great body of the state is excellent land, fitted for all the purposes of agriculture. Much of it has been under actual cultivation for the greater part of a century, and still retains its original strength. The county of Fairfield is the best in the state, and the farmers there, as a body, are remarkably thrifty and prosperous. The interval land on the Connecticut, in the county of Hartford, is very extensive, and of the same superior quality with that in Hampshire (Mass.) Below, its breadth is much narrower. The country along the Quinebog is equally rich and fertile, and is occupied by excellent farmers. Among single townships that of Guilford is probably not surpassed in its soil by any whatever. Those of Brooklyn, Pomfret and Woodstock are also of superior quality. The land in Connecticut, generally, if left to itself, turns to pasture in a course of years ; and, if sufficiently rich, to meadow. The grasses cultivated with the plough are clover and herdsgrass or foxtail. Wheat grows remarkably well, but is apt to suffer from the ravages of the Hessian fly. It is usually blasted, also, in those towns, where the barberry-bush has not been removed. For these reasons rye is much more extensively cultivated. Indian corn or maize is, however, far the most abundant crop, and none can be more advantageous. After maize, rye, and grass, the crop of potatoes is probably of the next consequence. Oats and flax also are raised extensively ; barley in less abundance. Every farm has one or more orchards, and the quantity of cider annually made is prodigious. Unfortunately too much of this wholesome beverage is converted into a filthy liquor, called cider brandy. The crops of pumpkins, turnips, onions and beans are also of great consequence to the Connecticut farmer. Immense numbers of neat cattle, and of hogs, are annually

* Dr. Dwight's statistical account of New-Haven.

fattened upon maize, and the beef and pork of this state are of well known excellence. The quantity of cheese annually made is very great. The dairy of every farm in the state is devoted to this manufacture during the warmest weather; and it constitutes the chief produce of Goshen and Stonington, or Pomfret, Brooklyn, Woodstock, Canterbury, and several other towns on the Quinebog. About 40,000lbs. are made every year in each of the towns of Goshen and Stonington. The number of sheep is very great, and is rapidly increasing. A large flock of merinos was imported into the state about 10 years ago, by Col. Humphreys, and great numbers have been brought in since. They do not degenerate in consequence of the change of climate. The wool of the American sheep is much improved by an intermixture; and the number of the mixed breed is already very large. Ten years hence the state will probably produce fine wool enough to clothe its inhabitants.

Rivers.] The Connecticut runs through the counties of Hartford and Middlesex, and for about 12 miles borders that of New-London. It has one fall in this state, at Enfield, 5 or 6 feet in the whole. No canal has been made around it. Between Hartford and Middleton there are shoals, which stretch across the river, and have naturally only 6 feet water over them at high tide, which here increases the depth but 8 inches. There is a bar at the mouth, which, at full tide, has 10 feet water. A company was incorporated in 1800, to deepen and widen the channel between Hartford and Middleton. They have increased its depth every where to $7\frac{1}{2}$ feet. About 3 miles below Middleton the width of the river is suddenly contracted to about 40 rods, by two mountains. The banks elsewhere are generally low, and annually overflowed and enriched in the spring.

The Housatonnuc rises in New-Ashford, in Berkshire county, Massachusetts; and runs in that state, almost due S. watering a fine rich country. It enters Connecticut between Canaan and Salisbury; and about 7 miles from the line, is precipitated over a perpendicular fall, 60 feet in height. Its breadth is here 75 yards. This is the finest cataract in New-England; and in the spring, is superior to the Cohoez in the Mohawk. The Housatonnuc runs a little W. of S. to New-Milford; and thence, its course is S. E. by S. to the sound, which it enters between Milford and Stratford. A bar of shells at its mouth prevents the entrance of large vessels. For sloops and brigs it is navigable 12 miles to Derby. Its whole length is about 140 miles.

The Thames has two principal sources. The eastern or the Quinebog, issues from a pond in Sturbridge, Massachusetts, and running S. E. enters this state in Thompson, where it has a fall of 20 feet, and another at Brooklyn of the same height. Its course is W. of S. till it joins the Shetucket, or western branch, 5 miles above Norwich, which is formed by the confluence of the Willimantic, Mount Hope, and several other streams. It keeps the name of Shetucket as far as Norwich, where it receives Little river from the W. Below this for 17 miles to its mouth it has the name of the Thames.

The Paucatuc, for a little distance, constitutes the eastern boundary of the state.

Quinipiac or Wallingford river rises in Southington, near a bend in Farmington river, and winds S. 30 miles to the east corner of New-Haven harbor.

Byram river is a mill stream, forming a part of the western boundary.

Farmington river rises in Sandisfield, Massachusetts, and running southward, near the Hartford county line, receives a western branch, which issues from a pond in Colebrook. Its course thence is S. S. E. to Farmington, where it turns to the N. around the Farmington mountains. After running 15 miles in this direction it receives Salmon river in Simsbury; and breaking through the mountains, forms a considerable cataract. Hence its course is S. E. to its mouth at Windsor, and its whole length is not less than 60 miles. There is strong reason to believe that this river once emptied itself into New-Haven harbor; and it is said, that at a small expense, its current might be turned back again.

Naugatuc river rises in Norfolk; and running S. by E. falls into the Housatonnuc at Derby, after a course of 45 miles.

Mountains.] The Toghconnuc range, commencing in Ridgefield, runs northward near the western line of the state. A branch from this range runs parallel with it on the east side of the Housatonnuc. Mount Tom in Litchfield, the highest summit in this branch, is about 500 feet high. West Rock the southern extremity of the east ridge of the Green mountains is a fine perpendicular bluff, fronting S. 400 feet high, and 2 miles N. W. from New-Haven. East Rock, the southern termination of the Mount Tom range is a similar bluff, 370 feet high, and the same distance E. N. E. from New-Haven. Mount Carmel, a spur from the same range in Hamden, has a singular break in it, near the W. end. The opening through the mountain is on both sides nearly perpendicular and reaches almost to its base. Towards the N. and S. it gives the mountain a very uncommon, but fine appearance. Its height is about 600 feet. The Blue Hills in Southington are three noble eminences in the same range. The southern, the loftiest, is about 1000 feet high, and is called the highest land in Connecticut. Farmington mountain, in the same range, is a hill of some distinction.

The Middleton mountains commence in East-Haven, and run N. E. through Durham, Middleton and Berlin, crossing the Connecticut river at Stepney and Glastenbury and joining the White mountain range in the eastern part of that township. That part of the range called the Middleton mountains has an elevation of 700 or 800 feet.

The White mountain range has no distinguished summits in Connecticut.

Botany.] The forest trees of Connecticut are the white, red, black, and mountain oak; chesnut; white, bitter, and shagbark walnut; butternut; common and slippery elm; white and swamp

ash ; white, red, and sugar maple ; buttonwood or plane tree ; white, pitch, and yellow pine ; double and single spruce ; fir ; hemlock ; swamp and red cedar, and juniper ; white, red, and yellow willow ; hornbeam ; sassafras ; pepperidge ; thorn locust ; white and black birch ; yellow, beech, mountain, and black plum ; white berried red willow, and common dogwood ; beech ; white, and black poplar, and aspen ; alder ; tulip tree or whitewood ; basswood ; crab apple, and crab pear ; and black mulberry.

Animals.] Few wild beasts are now to be found in the state, the country is so generally cleared. Red foxes are common : so are the black, red, gray, flying, and striped squirrel ; the weazel ; the polecat ; the muskrat ; the racoon, and the woodchuck. Formerly the otter, the beaver, the black and gray fox, and the mink abounded ; as well as the wolf, the bear, the deer, the moose, and the wild cat. The wharf rat has almost driven the black or common rat out of the state.

The most common birds in the fields and forests are the crow, blackbird, meadow blackbird, swamp blackbird, pigeon, robin, partridge, quail, snow bird, mock bird, plover, king bird, cat bird, wren, yellow bird, blue bird, humming bird, meadow lark, swallow, chimney swallow, whip-poor-will, lapwing, chaffinch, brant, old-wife kingfisher, wood duck, nighthawk, owl, wild goose, wild duck, wild turkey, and snipe.

The principal fish are the salmon, shad, trout, pike, sucker, herring, roach, perch, eel, and cat fish, in the rivers and ponds ; and the shark, porpoise, dolphin, halibut, sea bass, black fish, cod, sheep's head flounder, plaice, white fish, sun fish, and turtle lobster, scallop, oyster, long clam, round clam, crab, and muscle in the harbors.

The common insects are the bee, humble bee, wasp, hornet, musquitoe, gnat, breeze, spiders, beetle, borer, tumbler, hornbug, caterpillars, millars and butterflies, locust, catydid,* rose bug, and cricket.

The most frequent reptiles are the black snake, striped snake, adder, rattlesnake, racer, and water snake.

Mineralogy.] Iron mines are found at Salisbury, Canaan, Colebrook, Stafford, Kent, and Ridgefield ; and the metal is abundant. There is a lead mine on the bank of Connecticut river, two miles below Middleton, which was wrought in the revolutionary war, and was productive. Lead ore is also found in Milford. There is a copper mine in Cheshire, but it is not wrought, and another at Simsbury. Copper ore has also been found at Fairfield. There is a mine of cobalt at Chatham, and antimony has heretofore been dug in Glastenbury. Marble abounds in Washington and New-Milford. A quarry of superior fineness and beauty has lately been discovered in Milford, near New-Haven, within a small distance of a boatable stream, which passes into Long Island sound. A beautiful yellow pigment was discovered, in 1809, at Tolland. Very

* So called from the sound of its chirping.

fine white clay has been discovered at Washington, fitted for the manufacture of porcelain. There are quarries of excellent freestone in Chatham, East-Windsor, Northaven, Durham, and other places.

Mineral Waters.] A mineral spring at Stafford, 24 miles N.N.E. from Hartford, has obtained more celebrity than any other in New-England. It is a place of considerable resort in the gay season. The principal ingredients in its waters are iron and carbonic acid. Its waters are the most effectual and speedy cure yet known for salt rheum and other cutaneous affections. There is a spring in Suffield, which has been eminently useful in nephritic complaints. There are several others in different parts of the state.

MIDDLE STATES.

UNDER this grand division is comprehended the following states and territories, viz.

New-York	Delaware
New-Jersey	Maryland
Pennsylvania	Columbia District

NEW-YORK.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT, BOUNDARIES, DIVISIONS, NAMES, HISTORY, ORIGINAL AND PRESENT INDIAN POPULATION, RELIGION, GOVERNMENT, POPULATION, MILITIA, FINANCES, BANKS, MANNERS AND CUSTOMS, LITERATURE, CITIES AND TOWNS, ROADS, BRIDGES, INLAND NAVIGATION, MANUFACTURES, COMMERCE.

Extent.] THIS state lies between lat. 40 40 and 45° N. and between lon. 73° and 79 55 W. The length of the state on the parallel of 42° is 340 miles. The greatest breadth from N. to S. is 300 miles; the breadth, from the commencement of the Pennsylvania line, to the St. Lawrence, is 195; the average breadth, between that line and lake Ontario, is 90; and the breadth, at the western extremity of the state, only 10 miles. The number of square miles, exclusive of the islands, is about 45,000.

Boundaries.] Pennsylvania, New-Jersey, and Long Island sound bound it on the S. Connecticut, Massachusetts, and Vermont, from which it is separated in part by lake Champlain, on the E. and it has Lower Canada, the St. Lawrence, lake Ontario, Niagara river, and Pennsylvania, on the N. and W. This is the only state which extends across the whole United States, from the Atlantic to the western waters.

Divisions.] In 1731, the state had 10 counties; in 1786, 12; in 1791, 16; in 1800, 30 counties, and 305 towns; and, in 1810, 43 counties, and 452 towns. The state is also divided into 4 great districts for the choice of senators. viz. the southern, middle, eastern, and western. The names of the counties in each district, and their population, in 1810, follow.

<i>South District.</i>		<i>West District.</i>	
Counties.	Popula.	Counties.	Popula.
Suffolk	21,113	Schoharie	18,945
Queen's	19,336	Otsego	38,802
King's	8,303	Herkimer	22,046
Richmond	5,347	Lewis	6,433
New-York	96,373	Jefferson	15,140
West-Chester	30,272	St. Lawrence	7,885
		Oneida	33,792
Total in South District	180,744	Madison	25,144
		Chenango	21,704
		Broome	8,130
		Niagara	8,971
		*Cattaraugus }	12,588
		*Chataughque }	
		Cortlandt	8,868
		Onondaga	25,987
		Cayuga	29,843
		Seneca	16,609
		Tioga	7,899
		Steuben	7,246
		Ontario	42,032
		Allegany	1,942
		Total, West District	347,418
		Total in the state	959,220
		Of these 15,017 were slaves.	
		No. of townships in 1810, 452.	
		Counties formed since 1810.	
		Cattaraugus	Chataughque
		Tompkins	Hamilton
		Oswego	Putnam
		Warren	
<i>Middle District.</i>			
Rockland	7,758		
Orange	34,347		
Ulster	26,576		
Sullivan	6,108		
Dutchess	51,434		
Delaware	20,303		
Greene	19,536		
Columbia	32,390		
Total, Middle District	198,452		
<i>East District.</i>			
Rensselaer	36,309		
Albany	34,661		
Schenectady	10,201		
Montgomery	41,214		
Franklin	2,717		
Washington	44,289		
Essex	9,477		
Clinton	8,002		
Saratoga	33,147		
Total, East District	220,017		

* Genesee county has been divided into these two.

This state sends 27 representatives to congress.

Names.] New-York and the adjoining territories were originally called New-Virginia. The Dutch gave to this state, in 1614, the name of New-Netherlands. This name it retained till 1664; when, in honor of the duke of York, it was called New-York.

History.] Henry Hudson, an Englishman in the service of the Dutch, discovered the river and island of Manhattan in 1609. The next year the Dutch sent ships to open a trade with the natives.

The first effectual settlement was made by them, in 1614, on Manhattan island.

A general battle was fought between the Dutch and Indians, in 1646, at Horseneck, with mutual firmness and obstinacy. The Dutch kept the field.

A trading house was erected by them, in 1651, on a low point of land, which commanded the Delaware. The next year it was taken by the Swedes, and retaken in 1655.

In 1664, the English, under Richard Nicolls, took the country for the duke of York. The next year a code of laws was prepared, and the year after confirmed, by the duke. By the peace of Breda, in 1667, the Dutch confirmed the colony to the English.

In 1673, an expedition from Holland took the city of New-York; and the whole colony soon after submitted. The following year the country was restored by the treaty of Westminster, and the duke of York took out a new patent.

The first legislative assembly of the province met in October, 1683.

New-York and New-Jersey were, in 1688, annexed to New-England; and Sir Edmund Andros was constituted governor and admiral of the whole, with a legislative council appointed by the king; but the scheme miscarried.

In 1693, Episcopacy was made the established religion of the province.

A French army under Dieskau invaded the province, from Montreal, in 1755, and was routed by the New-York and New-England troops, under gen Johnson. Montcalm, in 1757, took fort William Henry on lake George. An unsuccessful attack was made by gen. Abercrombie, in 1758, on the French fort at Ticonderoga. In 1759 gen. Amherst took Ticonderoga and Crown Point; and gen. Johnson defeated a French army near Niagara, and took fort Niagara.

In 1765 the stamp act was successfully resisted, and in 1767 the powers of the provincial assembly were conditionally taken away by parliament. The assembly, in 1769, denied the right of parliament to tax the inhabitants.

In Sept. 1776, the British occupied New-York. The battle at White Plains was fought Oct. 28, and fort Washington taken Nov. 16. Ticonderoga and Crown Point were occupied by Burgoyne, in 1777.

On the 20th of April, that year, the state constitution was established.

In 1779 gen. Sullivan undertook an expedition against the Iroquois Indians, and destroyed great numbers of their villages. The British evacuated New-York, in 1783.

Original and present Indian population.] The Iroquois, or Six Nations, occupied a great part of the state, when it was first settled and for a long period afterwards.

The Delawares, a tribe of the Moheakanneew nation, then possessed the S. E part of the state. Numbers of smaller tribes of the same nation were near them.

The following extract of a letter to the author, from the late Rev. Mr. Kirkland, missionary among the Six Nations, gives an interesting account of their views of a future state. "The region of pure spirits, the Five Nations call *Eskanane*. The only characters which, according to their tradition, cannot be admitted to participate of the pleasures and delights of this happy country, are reduced to three, viz suicides, the disobedient to the councils of the chiefs, and such as put away their wives on account of pregnancy. According to their tradition, there is a gloomy, fathomless gulf, near the borders of the delightful mansions of *Eskanane*, over which all good and brave spirits pass with safety, under the conduct of a faithful and skilful guide appointed for that purpose; but when a suicide, or any of the above mentioned characters, approaches this gulf the conductor, who possesses a most penetrating eye, instantly discovers their spiritual features and character, and denies them his aid, assigning his reasons. They will, however, attempt to cross upon a small pole, which before they reach the middle, trembles and shakes, till presently down they fall with horrid shrieks. In this dark and dreary gulf, they suppose resides a great dog, some say a dragon, infected with the itch, which makes him perpetually restless and spiteful. The guilty inhabitants of this miserable region all catch this disease of the great dog, and grope and roam from side to side of their gloomy mansion in perpetual torments. Sometimes they approach so near the happy fields of *Eskanane*, they can hear the songs and dances of their former companions. This only serves to increase their torments, as they can discern no light, nor discover any passage by which they can gain access to them. They suppose idiots and dogs go into the same gulf, but have a more comfortable apartment, where they enjoy some little light." Mr. Kirkland adds, that several other nations of Indians with whom he has conversed on the subject, have nearly the same traditional notions of a future state. They almost universally agree in this, that the departed spirit is ten days in its passage to their happy elysium, after it leaves the body; some of them suppose its course towards the south; others that it ascends from some lofty mountain.

The body of the Six Nations inhabit the western parts of this state. The principal part of the Mohawk tribe reside on Grand river, in Upper Canada; and there are two villages of Senecas on the Allegany river, near the north line of Pennsylvania, and a few

Delawares and Skawaghkees on Buffalo creek. Including these, and the Stockbridge and Mohegan Indians, in the vicinity of Oneida, there were, in 1779, 6330 souls.

By a treaty made in 1794, between the United States and the Six Nations, it was stipulated "that 4500 dollars should be annually and forever expended in purchasing clothing, domestic animals, implements of husbandry, and other utensils, and in compensating useful artificers, who shall reside among them, and employed for their benefit." This allowance is distributed by a superintendent, in proportion to their numbers, which, in 1796, were as follows.

Residing in the U. States.		Within the British lines. These receive no part of the allowance.
Mohawks		300
Oneidas	628	
Cayugas	40	460
Onondagas	450	
Tuscaroras	400	
Senecas	1780	
Stockbridge	300	
Brotherton	150	
	<hr/> 3748	<hr/> 760

In 1817, the Oneidas appropriated 8000 dollars for the purpose of building a house of worship. The christian church here, at that time consisted of upwards of 50 members, under the pastoral care of the Rev Eleazer Williams, who has received episcopal ordination. Under his direction these Indians have formed a *Moral* and an *Agricultural* Society, and are prospering. One of the Indians, in 1817, raised 800 bushels of wheat.

The Oneidas inhabit on Oneida creek, 21 miles west of old fort Stanwix.

The Tuscaroras migrated from North-Carolina and the frontiers of Virginia, and were adopted by the Oneidas, with whom they have ever since lived. They were originally of the same nation.

The Senecas inhabit on the Genessee river, at the Genessee castle. They have two towns of 60 or 70 souls each, on French creek in Pennsylvania; and another town on Buffalo creek, attached to the British; two small towns on Allegany river, attached to the Americans. Obeil, or Cornplanter, one of the Seneca chiefs, resided here. A missionary from the society in New-York has been cordially received by the Seneca and Tuscarora tribes.

The Mohawks were acknowledged by the other tribes, to use their own expression, to be "the true old heads of the confederacy;" and were formerly a powerful tribe, inhabiting on the Mohawk river. As they were strongly attached to the Johnson family, on account of

Sir William Johnson, they emigrated to Canada, with Sir John Johnson, about the year 1776.

Religion.] The great body of the people in this state, class themselves under one or other of the following denominations, Presbyterians, Episcopalians, Associate, and Dutch Reformed, churches, both presbyterian in government; Baptists, Methodists, Friends, German Lutherans, and Calvinists, Moravians, Catholics, Universalists, Jews and Shakers. Religion is not supported by law. In April, 1784, the legislature of this state passed an act authorising all religious denominations to appoint trustees, not less than three, nor more than nine, who shall be a body corporate, for the purpose of taking care of the temporalities of their respective congregations, and for the other purposes therein mentioned.

The ministers of every denomination in the state are supported by the voluntary contributions of the people, raised, generally, by subscription, or by a tax upon the pews; except the Dutch churches in New-York, Schenectady, and Kingston. The first has large estates confirmed to it by a charter. The Episcopal church also in New-York possesses a very large estate in and near the city.

Government.] The legislature is composed of a senate and house of representatives. A certain number of senators is chosen by each district. They hold their seats 4 years, and a fourth part of the members is elected every year. The representatives are chosen by the several counties annually. Voters for senators must possess a freehold to the value of \$250 clear of debt. Voters for representatives must possess a freehold to the value of \$50, or have rented a tenement of 40 shillings yearly value. A council of revision, composed of the governor, chancellor, and the judges of the supreme court, is empowered to revise all bills passed by the two houses, and to return them to the house where they originated. If this is done, two thirds of both houses must repass them, or they are defeated. If it is not done in ten days from the time a bill is passed, it becomes a law of course.

The executive is composed of a governor, lieutenant governor, and council of appointment. The governor is chosen every 3 years.

The lieutenant governor, chosen for the same time, is president of the senate. The council of appointment consists of the governor and one senator from each district, chosen annually by the legislature. The governor presides, and has only a casting vote. It has the appointment of all subordinate offices, executive and judicial.

The courts in the state are, a high court of errors and impeachment, composed of the lieutenant governor, chancellor, judges of the supreme court, and the senate; a court of chancery, consisting of a chancellor appointed by the council of appointment, a supreme court, consisting of 5 judges appointed in the same manner, a court of admiralty; a court of exchequer; a court of oyer and terminer and general jail delivery; a court of quarter sessions; county courts consisting of 3 judges; and justices courts. Such parts of the common and statute laws of England, as were recognized in April, 1775, are still parts of the law of the state.

Population.] The number of inhabitants was in the year

1749	100,000				
1756	{ 96,775 whites 13,542 blacks }	110,317	1800	{ 555,063 whites 20,613 slaves 10,374 free b. }	586,050
1786	{ 220,008 whites 18,889 blacks }	238,897	1810	{ 918,690 whites 15,017 slaves 25,333 freebl. }	959,049
1790	{ 314,133 whites 21,324 slaves 4,663 free bl. }	340,120			

The items of the census of 1810, were as follows :

	males.	females.	total.
Under 16 years of age	239,635	226,756	466,391
Between 16 and 45	180,652	170,944	351,596
45 and upwards	53,985	46,718	100,703
Total	474,272	444,418	918,690

By this table it appears, that the population, in 1756, has been increased, by its whole amount, once in 7 years. The increase, in the last 10 years, was 372,999, and the ratio of increase 64 per cent. Should this ratio continue, the population, in 1820, will be 1,576,720. This state has 160,000 more white inhabitants than any state in the union, and is the second in the whole amount of its population.

Militia] The number of militia, in 1789, was 42,679; in 1790, 44,259; in 1791, 50,399; in 1800, 64,011; and in 1809, 102,068. The whole number of males between 16 and 45, is 180,652. In 1819, the official return was,

Infantry	109,274	Light Artillery	754
Artillery	7,326	Cavalry	1,142

Total 118,496

Finances.] New-York is the richest state in the union. The funds of the state, at the commencement of the year 1811, exclusive of the school fund, amounted to \$4,191,803:25. The state debt, at that time, was \$880,000. The state also possessed about 1,000,000 acres of land. The receipts into the treasury, in the year 1818, were \$2,965,863. Expenditures \$3,005,612.

Banks.] In 1811, there were 15 banks in this state, the capitals of which together amounted to \$11,840,000. Of these 5 were in the city of New-York; the capitals of which amounted to \$8,050,000. There are, (1819) including branches, upwards of 40 banks in this state, 30 of which, in 1817, had capital to the amount of 24,000,000 dollars.

Manners and Customs.] The Dutch were the first settlers of New-York. Their numbers were considerable, in 1664, when the province was taken by the English. They settled chiefly on Manhattan and Long islands, on the Hudson and Mohawk rivers; and their descendants are still found in these places.

The ancestors of the inhabitants in the eastern and middle parts of Long island, were either natives of England or the immediate descendants of the first settlers of New-England, and their manners and customs are similar to those of their ancestors. The counties

inhabited by the Dutch, have adopted the English manners in a great degree, but still retain many modes, particularly in their religion, which are peculiar to the Hollanders. They are industrious, neat and economical in the management of their farms and their families. Whatever business they pursue, they generally follow the old track of their forefathers, and seldom invent any new improvements in agriculture, manufactures, or mechanics. They were the first settlers of this state, and were particularly friendly to the English colony that settled at Plymouth in New-England, in 1620 ; and continued to be amicably disposed towards the English colonies east of them, until the unhappy dispute arose concerning the lands on Connecticut river.

The revolution and its consequences have had a very perceptible influence on a great part of the people in this state. Many, who had been tenants, became freeholders, and experienced as great elevation of mind, as of circumstances ; a spirit of liberality was diffused among the Dutch, the clouds of ignorance and national prejudice were dispelled. Schools, academies, and colleges are established and establishing for the education of their children, in the English and learned languages, and in the arts and sciences, and a literary and scientific spirit is evidently increasing.

The manners and character of the inhabitants of every colony or state will take their coloring, in a greater or less degree, from the peculiar manners of the first settlers. It is much more natural for emigrants to adopt the customs of the original inhabitants, than the contrary, even though the emigrants should, in length of time, become the most numerous. Hence it is that the neatness, economy and industry of the Dutch were early imitated by the first English settlers in this province, and, until the revolution, formed a distinguishing trait in their provincial character. It is still discernible, though in a much less degree, and will probably continue visible for some years to come.

Besides the Dutch and English already mentioned, there are in this state many emigrants from Scotland, Ireland, Germany, and some few from France. Many Germans are settled on the Mohawk, and some Scotch people on the Hudson, in the county of Washington. The principal part of the two former settled in the city of New-York, and retain the manners, the religion, and some of them the language of their respective countries. The French emigrants settled principally at New-Rochelle and on Staten island, and their descendants, several of them, have filled some of the highest offices in the United States.

Probably two thirds of the population of this state are now composed of New-Englanders, or their immediate descendants. These are, chiefly, emigrants from Massachusetts and Connecticut, and they retain much of the New-England character. Although there is no law of the state to compel the support of clergymen, yet these people are settling them in every town where their numbers are sufficient to maintain one ; before the state had paid any attention to the support of common schools, they had established them in almost every settlement.

When the New-Englanders settle a town, they usually put up a one story log-house in the wilderness for a temporary residence ; and speedily erect a large framed barn, covered with the best materials. In three or four years the log-house gives place to a framed house of two stories ; a large tract around it is under good cultivation ; and every thing wears the appearance of thrift and improvement. But in towns settled from the other states, or from Europe, the log-house too often remains till it decays, and is then followed by another.

The elections in this state in many places, are noisy and tumultuous ; the candidates are determined on before in caucus ; and official and pecuniary bribes are common. The laws respecting marriage are extremely loose. A large capital has, on many points, given law to public opinion and public manners. The towns in this state are too many of them built like cities. The houses are contiguous ; and the streets are narrow and dirty, and in some instances paved. The inhabitants thus get city modes of thinking, and living, and city vices. Horse racing is a common amusement here ; and is attended with its usual accompaniments, profanity, gambling, quarrelling, and drunkenness. These are too often witnessed at military reviews.

The character and manners of the inhabitants of this large and respectable state are fast improving, and it has a large body of men in the several professions of distinguished eminence and worth.

Literature] After the revolution, the legislature established a corporation, consisting of 21 members, (two of whom are the governor and lieutenant governor,) who are styled the, "the regents of the university of New-York." They are entrusted with the care of the literature of the state ; have the power to establish and charter colleges and academies ; and are to report annually the state of these institutions to the legislature.

There are three colleges in this state. *Columbia college*, in the city of New-York, was founded in 1754 ; and till the revolution, had the name of king's college. It is entrusted to a corporation of 24 members. The instructors compose two faculties ; a faculty of arts, and a faculty of physic. The faculty of arts consists of a president, provost, and professors of mathematics and natural philosophy, of logic and geography, of languages, of chemistry and agriculture, of oriental languages, of law, and of the French language. The faculty of physic consists of a dean, who lectures on clinical medicine, and of professors of botany, of anatomy, of the obstetric art, of materia medica, of the institutes of medicine, of surgery, and of the practice of physic. The number of students, under the faculty of arts, is at present small, but is increasing ; the others are medical students merely. The college building is a stone edifice, 150 yards from the Hudson ; containing 48 chambers, a chapel, dining-hall, library, museum, anatomical theatre, and philosophical chamber. The annual revenue of the collegiate funds amounts to \$3,850.

Union College, in Schenectady, was incorporated by the regents of the university, in 1794. The corporation consists of 24 members. The instructors are a president, 5 professors, viz. of moral philosophy and logic, of mathematics and natural philosophy, of Greek and

Latin, of chemistry and belle lettres; of the French language, and 3 tutors. The funds, in 1796, amounted to \$42,422.60, and 1604 acres of land. The legislature has since, by lottery, granted the institution about \$90,000, besides other grants.

The college edifices, 2 in number, now stand pleasantly, somewhat elevated, on the E. side of the city, spacious and well contrived, each 200 feet long, 4 stories high, with two wings of 150 feet, containing more than 100 rooms for the students; also, handsome accommodations for the officers of the college and their families—lecture, dining and library rooms. These buildings are but part of a plan, which when perfected, will make this institution, so far as respects its edifices, and accommodations for its officers, more like the European universities, than any other in our country. The library has upwards of 5000 volumes; and the philosophical and chemical apparatus are complete; and the number of students, in 1818, was 122. The commencement is on the 4th Wednesday in July. An academy of about 100 students is connected with the college.

Hamilton College, in the town of Paris, 10 miles W. of Utica, was incorporated in the year 1812, by the regents of the university of the state of New-York. About \$50,000 were subscribed by individuals, and the same sum granted by the legislature, to constitute the funds of the seminary; since which, an addition has been made to them, by indirect grants of the legislature, of about \$50,000. A part of the funds have been expended in the erection of buildings, and for other useful purposes. It has 3 professors, viz. of languages, of mathematics and natural philosophy, and of chemistry, and 2 tutors, with a good chemical and philosophical apparatus, and a library of about 2000 volumes, and, in 1816, 69 students. The college buildings are, one of four stories, built of stone; one three stories, of wood, and a college hall, and some buildings for the accommodation of the faculty. In a niche in the largest building stands an elegant bust of *Hamilton*, presented to the institution by several gentlemen in New-York. The college buildings are situated on a hill of considerable elevation and gentle ascent, a little distance W. of Clinton village, in the town of Paris, Oneida county. The situation commands an extensive and beautiful prospect, over a fine and well cultivated section of country. Clinton village is 105 miles west of Albany.

This well endowed and well taught seminary, situated in the heart of one of the most populous and flourishing sections of our country, promises to be, at a period not distant, one of the most important institutions in the U. States.

In 1811, there were upwards of 40 academies in this state. A fund, for the support of common schools, at that time, amounted to \$483,326.29; the income of which, in 1810, amounted to \$36,427.64. Beside this, the fund had 314,770 acres of unsold land. A common school was, by law, to be established within the limits of every 4 square miles. Some time probably will be necessary to furnish the state with common schools, on the Connecticut footing, with as good a system, as competent directors, and as unexceptionable instructors. Since 1811, the progress in diffusing knowledge of all

the useful kinds, throughout this rising state, has been regular and rapid.

Societies, Religious, and Humane.] The city of New-York is the seat of the *American Bible Society*, established in May, 1816, and also of *The United Foreign Missionary Society*, composed of the Presbyterian, Reformed Dutch, and Associate Reformed churches, established in 1817. Their object is to "spread the Gospel among the Indians in N. America, the inhabitants of Mexico and S. America, and other portions of the heathen world."

In 1817 was incorporated "The New York Institution for the instruction of the Deaf and Dumb," which went into operation in 1818, under the care of Rev. Mr. Stansbury, who instructs on the plan of Dr. Watson of England.

Cities and Towns.] The city of NEW-YORK was founded by the Dutch, in 1614; and was then called New-Amsterdam. It is built on the S. end of the island of Manhattan, an island at the mouth of the Hudson, which has that river on the W.; the harbor on the S. the strait which connects Long Island sound with the harbor on the E.; and Haerlem creek, which separates it from West-Chester county, on the N. E. The island is 15 miles long, and no where more than 2 wide. Its width at the S. end is less than 1 mile. The harbor is a large bay, formed by the union of the Hudson with the strait of the sound, called East river. It is 4 miles wide from Long Island to the Jersey shore, and extends 9 miles from the city to the Narrows, through which it communicates with the ocean. It has every where sufficient depth for the largest vessels. The city reaches about 4 miles on the East river, and 3 on the Hudson; is, on an average, a mile wide; and is about 10 miles in circuit. The 3 principal streets are Pearl street, Broadway, and Greenwich street. The first is parallel with the East river; the other two with the Hudson; and they all run the whole length of the city. These are intersected, though not at right angles, by streets running from river to river. Pearl street, near the East river, is uneven, narrow, and crooked, and is the great seat of business. Broadway, in the middle of the city, is 70 feet wide, and runs N. and S. It is generally very well built. Greenwich street near the Hudson is almost straight, and is wide and handsome. The battery is a fine public walk at the southern extremity of the city, containing several acres. The park is a small field of the same kind in front of the new city hall, containing half an acre. The modern houses in New-York are all of brick, and are generally well built. Many of them are handsome. The old ones are not very numerous; but many of them are of wood, and of a mean appearance. The new city hall is a large and noble building of white marble, 216 feet long, by 105 broad, cost \$500,000. Federal hall is at the head of Broad street. The state prison is 2 miles from the southernmost point of the city, on the bank of the Hudson. It is inclosed by a wall 16 feet high, is extensive, but has not been found entirely secure. The New-York hospital, comprises the lying-in hospital, the hospital for the sick and disabled, in which were 175 persons in 1818, and the lunatic asylum, which had 72 persons, at the above period. This institution has a well

selected library of about 4.000 vols. and is one of the most excellent of its kind. The New-York society's library has about 15.000 vols. ; and that of the historical society, about 5000, besides a valuable body of papers, and manuscripts. The American academy of Fine Arts is rich in its paintings ; as is the New-York lyceum of Natural History ; and the American Museum in their extensive scientific and curious collections. The synod of the Associate Reformed church established a Theological Seminary in this city in 1805 ; the first in this country, which has since flourished ; and in 1818, had 26 students, 2 professors, and a library of 5000 volumes. The city contains about 60 places for public worship, for Presbyterians, Episcopalians, Dutch Reformed, Scotch Presbyterians, 2 German Lutheran and Calvinists, Methodists, 5 Baptists, 1 Moravians, 1 for Catholics, 1 for French Protestants, and 1 synagogue for Jews.

The population of the city was in the year

1697	4,302	1790	33,131
1756	10,381	1800	60,439
1771	21,863	1805	75,770
1786	23,614	1810	93,914

The inhabitants are more than one third of New-England origin. After these the most numerous are the Dutch and Scotch ; and the English, Irish, and French. The commerce of the city is far before that of any place in America ; and, in the course of a few years, will probably equal that of any city in the world, except London. It imports most of the goods consumed between the Raritan and the Connecticut, a coast of 130 miles, and between the ocean and the lakes, a distance of 400. This extensive tract is rich, wealthy, and populous. The grand western and northern canals will bring a vast accumulation of business and wealth to this great city. The city contains manufactories of very many kinds, more than can be here enumerated. The citizens suffer from the want of good water ; but the markets are uncommonly well supplied with meat, fish, poultry, vegetables, and fruits of every kind, and with all the luxuries of foreign and domestic growth. The city is divided into 10 wards, each of which chooses an alderman. The mayor, one of the most important offices in the state, is appointed by the council of appointment.

ALBANY was founded by the Dutch in 1623, and by them called Fort Orange. It capitulated to the English, Sept. 24, 1664, who called it Albany, in honor of the duke of York and Albany ; and was incorporated in 1686. It is the seat of the government of the state. It stands on the W. bank of the Hudson, 160 miles N. from New-York, near the head of sloop navigation. The streets are generally crooked, but several of them are broad and well paved. State street is particularly handsome. Most of the old houses are built in the Dutch style, and are of an indifferent appearance. But the new houses are now the most numerous, and great numbers of them are handsome. The appearance of the city is greatly changed within the last 20 years. It is now a well built handsome place, and every thing wears the appearance of thrift and improve-

ment. It contains 3 Presbyterian churches, 2 Dutch Reformed, 1 Episcopalian, 1 High Dutch, 1 Methodist, 1 Baptist, 1 Friends, and 1 Catholic: in all 11. In 1712, the population was nearly 4000, of whom 450 were negro or Indian slaves. In 1797, it had 863 houses, and 6021 inhabitants; in 1810, 9356. A majority of the inhabitants are Dutch, and many of them are New-Englanders. The city is supplied with excellent water by an aqueduct, which conveys it from a copious spring 5 miles distant, and conducts it to every house. Here is a respectable academy with 150 pupils. The city is pleasant and healthy,—has the best society, and is a place of great and increasing business.

SCHENECTADY was built by the Dutch, upwards of 120 years since; and stands on the S. bank of the Mohawk, 16 miles W. N. W. of Albany, and the same distance from the mouth of the Mohawk. The streets are narrow, dirty, and crooked, and the houses are almost universally of the *Dutch order of architecture*. The public buildings are a court-house and jail, a Presbyterian, Dutch, Episcopal, and Methodist church, and the college edifices. Here is also an academy for young ladies. A bridge, 1000 feet long, across the Mohawk, connects this city with the town on the opposite side of the river. The population in 1790, was 3,472; in 1800, 5,289; and in 1810, 5,909. The town has little commerce.

HUDSON stands at the head of ship navigation, on the E. bank of the Hudson, 124 miles N. from New-York, and 36 S. from Albany. The first house was erected here in 1784. The population in 1790, was 2,584; in 1800, 3,664; and in 1810, 4,048. The city is laid out in large squares, divided by spacious streets, crossing each other at right angles. Each square contains 30 lots, 2 deep, divided by a 20 feet alley. Each lot is 20 feet in front and 120 deep. Water is brought to the town by an aqueduct from a spring 2 miles distant. It has 4 houses for worship, an academy, and 2 banks.

POUGHKEPSIE is on the E. bank of the Hudson, half way between New-York and Albany. It has 5 churches, and a very flourishing academy. The situation of the town is pleasant. Population in 1800, 3,246; in 1810, 4,670. It has considerable trade.

BROOKLYN is 1 mile from New-York, on the opposite side of East river. It contains an Episcopal, a Dutch, and a Methodist church. The shore here is extremely bold. Population in 1800, 2,378; and in 1810, 4,402.

TROY is a beautiful and very flourishing town, on the E. bank of the Hudson, 6 miles N. from Albany. It contains 3895 inhabitants, has 5 houses for religious worship, and is a place of much business.

LANSINGBURG is 3 miles N. from Troy, on the same bank of the river, and opposite the mouth of the Mohawk. Its population is 1658. It has 4 houses of worship, an academy and bank.

UTICA, a pleasant, commercial, well built village, or district of Whitestown, incorporated with city privileges, and rapidly increasing, is situated on the S. bank of the Mohawk, 94 miles W. of Albany. It is the centre of a very active trade for the extensive and thriving western country, including part of Upper Canada, and Michigan Territory. It has 5 places for public worship, for Presbyterians,

Scotch Presbyterians, Episcopalians, Baptists, and Methodists, one for each ; 3 banks, and an academy. It has a population of about 2000 souls. Lat. $43^{\circ} 4' N.$ long. $75^{\circ} 12' W.$

CANANDAIGUA is the seat of government for the county of Ontario, 110 miles W. of Utica, at the outlet of Canandaigua lake. The whole township contains about 4000 souls. The village, as it is called, contains half of these, who inhabit about 220 well built houses. It has 3 places for public worship, 1 for Congregationalists, 1 for Episcopalians, and 1 for Methodists ; a court-house and jail, an academy and 5 school houses ; and two private and respectable female schools, in which are taught the higher branches of education. It is a very pleasant town, in the midst of a rich country, and a place of active and lucrative business.

Roads.] The number of incorporated turnpike companies in 1811, was 135. Their stock amounted to \$7,558,000 ; and their roads completed, extend 4,500 miles. The most important of these is the great western turnpike, reaching from Schenectady to Buffalo, on lake Erie, a distance of 300 miles. The road between Albany and Schenectady, 16 miles, belongs to another company, and may be compared with the best in Europe. It cost about \$100,000. The turnpike from Catskill west extends upwards of 100 miles. To these may be added the Chateaugua military road, of which we have not the particulars.

Bridges.] There were in 1811, 36 bridge companies in this state, with stock amounting to \$509,000. Cayuga bridge is across the mouth of Cayuga lake, on the great western turnpike. Its length is one mile. It is laid out in 210 trestles ; each consisting of 3 posts connected by 4 girts, and 4 braces. The posts are driven through the mud 30 feet, to a hard gravel bottom, and are 25 feet apart. The expense was \$25,000, and the receipts have generally been about 25 per cent. Montezuma bridge, in the town of Mentz, extends 3 miles, with one island in its centre, and accommodates the northern turnpike, in its course along the ridge road, to Rochester and Lewiston. The Cohoez bridge is thrown across the Mohawk, 10 miles north from Albany, and three quarters of a mile below the falls ; which are in full view, and form a magnificent spectacle. It is 960 feet long, 24 broad, and 15 above the river, the bed of which is principally of rock. It is supported by 13 solid stone pillars. Schenectady bridge, over the Mohawk, is about the same length. There is another over the same river, of one arch 80 feet in the chord, 50 miles above Schenectady ; and another at Utica, 120 feet long, also of one arch. There is a fine bridge over the Hudson at Waterford. Staat's bridge crosses Abram's creek, a little north from the city of Hudson, and 250 feet in length. Haerlem bridge crosses Haerlem creek, 8 miles from the city. A bridge at Carthage, Ontario county, 30 rods below the lower falls, in the Genesee river, is a wonderful effort of human genius. The banks on each side of the river are in height, 200 feet perpendicular, and 350 feet apart. The bridge resting on abutments of solid rock, consists of a single arch, suspended over this awful chasm, the centre of which

is 270* above the water. The length of the chord of the arch is 352 feet, of the floor 700. The architect, Col. Ezra Brainerd.

Inland Navigation.] The Hudson is chiefly a long, narrow bay, into which the tide flows 166 miles, as far as Troy. It is navigable for ships of any burthen to Hudson, 124 miles; and, for sloops of 80 tons, to Albany. Ship navigation to Albany is prevented by a number of shoals and islands 6 or 8 miles below the city, called the *Overslaugh*. It is doubted whether there is another river in the world, equally deep for so great a distance, which presents so feeble a current to ships ascending the stream. Lake Champlain bounds the state, on the east, for more than 100 miles, and is every where convenient for sloop navigation. The St. Lawrence stretches along the northwest frontier 120 miles, lake Ontario 200, on which are 4 steam boats, Niagara river 40, and lake Erie 70 miles.

The canals between the Hudson and lake Champlain, have already been described; as well as those which connect Wood creek with the Mohawk, and the contemplated grand canal, between lake Erie and the Hudson.† The grand canal, by order of the legislature, passed Feb. 1819, is to be continued from Seneca river to lake Erie. The receipts for the accomplishment of this great project, for the year 1818, were \$427,726:36. Payments \$483,330.

Manufactures.] The value of the manufactures of this state, excluding doubtful articles, and valuing the manufactures which were entirely omitted, or imperfectly returned by the marshal, in 1810, was \$25,370,289. Previously to the year 1810, 413 carding machines were in operation in this state; and during the year mentioned 9,098,713 yards of cloth were manufactured.

The number of paper mills in the state was then 28; of glass works 6; of powder mills 2; of rope walks 18; of sugar houses 10; of oil mills 28; of blast furnaces 11; of air furnaces 10; of cut nail manufactories 44; of forges 48; of trip hammers 49; of rolling and slitting mills 1; and of cotton manufactories 26.

* Another account says 190 feet.

† Page 232.

The following particulars of the northern canal, penned Dec. 1818, are interesting:—

“The excavation through the rocks at Whitehall landing, for the locks, (three in number, of 90 feet in length each, and 14 feet wide, embracing a lift of 26 feet, which reaches the summit level to Fort Ann, a distance of eleven miles, (excepting one small lift of four feet) is nearly completed; and these locks will be finished by the first of October next. The earth excavation made by Smith and Wheeler is finished. The chambers for the locks at Fort Ann and Fort Edward are excavated and a great part of the stone is collected. The lift at Fort Ann to gain the summit level between lake Champlain and the Hudson river, is about 24 feet, and the descent from that level to the Hudson is about 30 feet. These locks are in such a state of forwardness that it may be presumed they will be completed in all the month of September next. The excavation between Fort Ann upon Wood Creek, and Fort Edward upon the Hudson, a distance of about 14 miles, is finished, with the exception of about 2 and a half miles. The culverts, waste weirs, and dams are contracted for and are progressing; and but little doubt remains, that should the next season be ordinarily favourable, the canal between the lake and the Hudson will be finished in all its parts by the first of November next.—The question whether the canal shall be continued from Fort Edward to the tide waters of the river, rests with the legislature; but it is presumed that an appropriation will be made at the ensuing season to embrace that object.

The following was the estimated value of the various manufactures:

Cloth	\$5,682,828:62	Cordage	538,000:00
Leather	1,299,542:16	Refined sugar	420,706:00
Distilled liquors	1,685,794:40	Oil	49,283:75
Malt liquors	340,765:68	Cut nails	276,932:80
Paper	238,268:00	Other iron	651,980:00
Hats	249,035:00		
Glass	716,800:00		\$12,109,536:48
Powder	10,400:00		

The quantity of salt, made in that year, was 525,000 bushels; of which 453,840 were made at Onondaga, 54,000 in Cayuga county, and the remainder in the counties of Genesee, Seneca, and Ontario. About 17,400 barrels of salt were transported in 1810, by Black Rock, on lake Erie, across the lake to supply the market of the western part of Pennsylvania and Ohio; and the next year 20,000 barrels. On lake Erie in 1811, were 10 vessels, measuring 548 tons, employed in the trade of this lake. Silk, to the amount of 2240 skeins, was made at Cayuga, in 1810. The article of flour probably exceeded in value either of those in the table; the quantity of pot and pearl ashes and maple sugar is also very great; but we have seen no returns of the quantity or value of either of the three.

Commerce.] The value of exports and imports, and the tonnage of this state, for the years stated, is exhibited in the following table.

	Domestic.	Foreign.	Total.
1807	\$ 9,957,416	\$16,400,547	\$26,357,963
1810	10,928,573	6,313,757	17,242,330
1816	14,168,291	5,531,740	19,690,031
1817	13,660,733	5,040,700	18,707,433

The shipping belonging to the state, in 1809, was 251,525 tons, beside that on lakes Erie, Ontario, and Champlain. In 1816, 309,290 tons. Wheat is the staple of the state. The other great articles exported are Indian corn and meal, lumber, iron, pot and pearl ashes, naval stores, fish, and refined sugar; beside the productions of the south and of foreign countries. Probably more than one half of the domestic exports of this state is derived from New-England and New-Jersey, and the southern states. This state paid to the United States, in 1815, \$14,491,739:30.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE AND SEASONS, FACE OF THE COUNTRY, SOIL AND AGRICULTURE, RIVERS, LAKES, BAYS, MOUNTAINS, BOTANY, ZOOLOGY, MINERALOGY, MINERAL WATERS, NATURAL CURIOSITIES, ISLANDS.

Climate and Seasons.] THIS state stretches through more than 4 degrees of latitude. There is considerable diversity in the temperature of the two extremes. The greatest range of the thermometer is from 24° below, to 95° above the cypher of Fahrenheit. The climate of the countries between lake Ontario and Pennsylvania is much warmer than that of those farther east. The earliest forest trees in this tract put forth their leaves in the first week of May; and the oak and other late trees by the 20th. Maize is planted between the 15th and 25th. Rye begins to ripen, and hay to be cut, about the 4th of July; and wheat about the 20th. The shallow ponds and brooks freeze early in October, and snow commonly falls by the 20th of November. It seldom exceeds a foot in depth. Cattle are sometimes kept in pastures till January, and on the Genesee flats nearly the whole winter. The fever and ague is the common disease throughout the state. It prevails on the Hudson, and on lake Champlain, on the Mohawk and the St. Lawrence, on the Chenango and the Oswego, on the Genesee and the Niagara. The country, between Pennsylvania and lake Ontario, is the least healthy part of the state. Malignant bilious fevers are very common, and prove extremely prejudicial to strangers. This is particularly true on the banks of the Genesee. They occur also frequently between Champlain and the St. Lawrence.

Face of the Country.] That part of the state which lies between the Hudson and Chenango may be characterized as mountainous, and the direction of the ranges is from S. W. to N. E. A narrow tract on and near the Pennsylvania line is generally hilly. The country between that and lake Ontario is an extensive level, without a hill in the whole extent deserving the name of a mountain. The country around lake Ontario, on the S. and E. has a very singular surface. Lake Erie is more than 300 feet above lake Ontario. The country around it is of course much higher. This high tract, is a level, and reaches eastward a great distance. The descent from it towards Ontario is not irregular and imperceptible; but is made by three successive pitches, or steeps, with a wide interval of level land between them. Two of these extend eastward from the bank of the Niagara, nearly parallel with each other, and about 14 miles apart. The upper or southern pitch commences at Buffalo,

at the mouth of lake Erie. The middle pitch commences at the falls; and after an eastern course of 50 or 60 miles, bends towards, and approaches the upper; after which they both take a southern direction for 30 miles, and meet the Genesee. That river falls 60 feet over the upper, and in no great distance, 90 more over the middle pitch. These falls are about 30 miles south from the western turnpike in the township of Avon.* On the eastern side of the Genesee these pitches diverge. The upper stretches a little north of east around the mouth of Canandagua lake to the west side of the Seneca, and thence runs south between that and Crooked lake, to the high grounds of the Tioga. The other passes north of Seneca, Cayuga, Owasco, Skeneateles, and Otisco lakes; and thence keeps an eastern direction to the hills, from whose southern declivities flow the Chenango and Unadilla. The northern or lower pitch branches from the middle one near the Eighteen Mile Run; (a stream which empties eighteen miles E. from the Niagara;) and diverging northward, proceeds with a progress sometimes indistinct to the lower falls of the Genesee; the descent of which is 96 feet, and their distance from its mouth 10 miles. Here it crosses the river; and, assuming more the appearance of a ridge, stretches eastward to the falls of the Oswego, 12 miles from its mouth. We know not whether this ridge here turns to the north, and forms the lower cataract of the eastern rivers of lake Ontario.

The country in the northeastern part of the state is generally hilly; and the height of land between Champlain and the St. Lawrence, is a range of mountains of considerable height. A strip of land about 30 miles wide along the St. Lawrence is uneven. At that distance it becomes rough and broken.

Soil and Agriculture.] The whole tract of country between the Susquehannah and the Genesee is very fertile. This is particularly true of Seneca county, which lies between Seneca and Cayuga lakes, of the valley of the Chenango, and of the Genesee flats. These last include a strip of about 60,000 acres, lying on both sides of the river, in some places nearly two miles wide. These flats produce 100 bushels of maize to the acre, and are probably as rich as land can be. West of the Genesee the soil is less uniformly good. That near lake Ontario is the best. An extensive tract lying west from Massachusetts, and including the counties of Rensselaer, Columbia, Greene, Schoharie, Albany, and Schenectady, has but an indifferent soil. Dutchess and West-Chester are excellent land, and in high cultivation. The country along the Mohawk, west of the Oneida village, is very rich. The extensive flats of Herkimer have been cultivated a long period, and have lost none of their fertility. In the counties southeast of the Chenango, the hills are covered with fine timber, and when cleared make excellent pasture; and the intervening vallies produce grass and every kind of grain in abundance. The county north

* Formerly called Hartford.

of the Mohawk is also generally fertile. The basis of the soil within 20 miles of the St. Lawrence is a stiff clay, on the high grounds covered with loam, and in the low grounds appearing on the surface. The lands along the Black river are among the best in the state.

Wheat is more extensively raised in this state, than all other grains. The next after it, is maize. This and peas are exported in large quantities. Rye is chiefly raised for the distilleries, and barley for the breweries. Dutchess county is one of the oldest, and is under the best cultivation. In the new settled parts of the state the farmers have such an abundance of excellent land that they pay little attention to improvements in agriculture.

Rivers.] Niagara river and the St. Lawrence are both on the frontiers. The Hudson, which runs wholly in this state, has already been described. The Allegany, Susquehannah, Delaware, Passaic, and Hackensac all find their sources here.

The Mohawk rises N. of Fort Stanwix or Rome, 8 miles from Black river, and running S. 20 miles to the site of the old fort, there turns eastward. Its course is thence E. by S. 130 miles to the Hudson, into which it empties opposite Lansingburg, 169 miles above New-York. The descents and distances on this river, by an accurate admeasurement, are as follows :

	miles.	feet.
From fort Stanwix to Little Falls	48	59 $\frac{1}{2}$
Little Falls	$\frac{3}{4}$	42
Thence to Schenectady	57 $\frac{1}{2}$	110 $\frac{1}{2}$
Thence to Lansing mills	12 $\frac{1}{2}$	28 $\frac{1}{4}$
Thence to the Hudson, including the Cohocz (70 feet)	4 $\frac{3}{4}$	140
	123 $\frac{1}{4}$	380 $\frac{1}{4}$

The Mohawk runs in a deep ravine, and is wild and impetuous. There is generally along its banks a vale of rich soil. But in various places, spurs from neighbouring hills project themselves to the edge of the river. Its chief tributaries from the N. are Great and Little Canada creeks. The former empties at Herkimer; the latter 13 miles below. They are long, rapid, and unnavigable; and run in deep ravines, in the midst of an exceedingly rich and productive country. On the S. the Schoharie, descending from the Catskill mountains, rolls northward with the impetuosity of a torrent, and joins the Mohawk at Fort Hunter. Its waters have scooped out a wide and deep ravine for more than 80 miles.

The Genesee rises in Pennsylvania, a few miles from its N. line, and pursues a northwesterly course of about 50 miles, and then a northeasterly one of 70, to lake Ontario. Its falls and flats have been mentioned. In the spring, this river is a torrent; in the autumn it is nearly dry.

Oswego river has two principal branches. The eastern branch rises about 20 miles N. of Rome, where it is called Wood creek. From Rome it runs westward to the E. end of the Oneida lake; 23 miles by its meanders, but only 14 as straightened by 13 canals. In this distance it falls 60 feet; and 1 $\frac{1}{2}$ miles from the lake receives

Fish creek from the N. along whose banks, for 20 miles from its mouth, the Oneida Indians have reserved half a mile, on each side, for the purpose of taking salmon. Issuing from the W. end of the Oneida, it takes the name of Onondaga, which it retains to the Three river point; meandering 18 miles to accomplish 8. Here it receives the Seneca, or the western branch, and takes the name of the Oswego. Its course hence is N. W. 45 miles, to lake Ontario. Between this lake and the Oneida the whole descent is 130 feet. The chief fall is 12 miles from the mouth of the Oswego, and thence there is a continued rapid to lake Ontario. The other branch, Seneca river, finds its most distant source in that of Meed creek on the west side of Canandagua lake. Thence it winds N. and E. about 40 miles, and receives the waters of that lake through a river of the same name. About 20 miles farther east, (the last fifteen of which are boatable,) it is joined by the river Scayace, (the common outlet of Crooked, Seneca, and Cayuga lakes,) and there first takes the name of Seneca river. Proceeding northwardly, it receives the waters of Owasco and Skeneateles lakes; and, after flowing through Cross lake, those of Salt or Onondaga lake, and lake Otisco, by the same channel, mingles with Onondaga river.

Black river heads near the sources of Great Canada creek, and runs S. W. 20 miles. There bending N. N. W. in about the same distance it receives Moose creek from the E. As they unite, they rush over a precipice 63 feet perpendicular, into a broad basin. Hence it flows, a broad and quiet stream, 42 miles in the same direction; when, passing an inconsiderable fall, it turns W. by S. and, after a course of 25 miles, empties into Hungry bay, 20 miles S. of the outlet of lake Ontario.

Racket river rises near the Hudson, and at first runs N. E. It has a portage of 1 mile to Moose creek, and of $1\frac{1}{2}$ mile to the Hudson. After passing through three considerable lakes, the lowest of which is 40 miles from its source, it runs N. W. 50 miles, and in this distance has more than 20 falls and rapids; some of which are 20, others 40, and one 150 feet high. In this distance it is generally 100 yards broad; but, in one place, only 5 feet. Turning again to the N. E. it has a gentle current for 30 miles to the St. Lawrence.

Grass river runs N. W. about 50 miles, and N. E. 40, emptying a little W. of Racket river.

The **Oswegatchie**, heads near some of the branches of Black river, and pursues an uncommonly crooked course of 80 or 90 miles to the St. Lawrence. It receives 7 miles above its mouth, the waters of Oswegatchie lake from the S. W.

St. Regis and **Salmon** rivers both run the chief part of their course in New-York, and fall into the St. Lawrence in Canada.

Big Chazy river falls into lake Champlain, a few miles from Canada, and is navigable 7 miles. The **Saranac** heads in several lakes near Racket river, and runs N. E. 70 miles, emptying into the same lake at Plattsburg. **Sable** river, a little S. of this, has a remarkable succession of falls; the greatest of which is 40 feet, and the whole descent 200. At the foot of the greatest the water is unfathomable.

The stream is here contradicted by rocks 40 feet high, to a breadth of 40 feet.

The chief tributaries of the Hudson are from the E. Battenkill, the Hoosac, and the Croton; and, from the W. beside the Mohawk, the Saucondauga, Catskill, Esopus creek, and Wallkill.

The Chenango is a considerable branch of the Susquehannah. The Tyoga, the chief western branch of that river, receives Cawanisque, Conestego, and Conhocton creeks, and is itself boatable 50 miles.

Cattesaugus and Buffalo creeks fall into lake Erie; and the Tonewanto empties into the Niagara, after a course of 40 miles; of which it is boatable, after its fall of 25 feet over the upper pitch, 28 miles.

Lakes.] Erie, Ontario, and Champlain each form a part of the boundary of New-York.

Lake George lies S. W. of lake Champlain, and is 37 miles long, and from 1 to 7 broad. On each side it is skirted by lofty mountains. Its banks, however, are uncommonly regular and handsome; and its water is so transparent, that the bottom is visible at almost any depth. It embosoms more than 200 beautiful islands, most of which are covered with white pine, cedar, spruce, and hemlock trees. It falls into lake Champlain by a channel 3 miles in length, in the course of which its waters fall upwards of 100 feet. Scaroon lake, in Montgomery county, is one of the sources of the Hudson, and is 12 miles long and 1 broad.

Oneida lake is 20 miles long and 5 broad. It abounds in the salmon of the lakes. From the south it receives the waters of Cazenovia lake, through the Chittenango.

Onondaga, or Salt lake, is 6 miles long and 1 broad. On the S. W. it receives the waters of the Otisco, by a stream 16 miles long; and, at the N. end, flows through a short channel into Seneca river. Skeneateles lake is 14 miles long, and 1 broad. Its waters flow into Seneca river, where it enters Cross lake. Owosco lake is 11 miles long and 1 broad, and is discharged into the same river.

Cayuga lake is 40 miles long, and from 2 to 4 broad, abounding with salmon, bass, eels, and cat fish.

Seneca lake is 40 miles long, and from 2 to 3 wide. Its outlet, the Scayace, runs N. of E. 12 miles, and falls into Cayuga lake near its mouth. Its length, from that lake to mud creek, is about 4 miles. Crooked lake is 15 miles long, and from 1 to 2 wide. A short stream connects it with the Seneca. Canandagua lake is 15 miles long and nearly 2 broad. Mud lake, Honeyoy, Hemlock, and Canesus lakes are from 5 to 7 miles long.

Chataughque lake lies 9 miles from lake Erie. It is 18 miles long and 3 broad. Its waters flow through Connewango creek into the Allegany river. Boats go from the head of this lake to New-Orleans.

Otsego and Caniaderago lakes are the two sources of the Susquehannah. The first is 9 miles long and 1 wide. The other is nearly as large.

Oswegatchie lake is 18 miles long, and nearly parallel with the St. Lawrence.

Bays.] New-York bay is 9 miles long and 4 broad, and spreads to the southward of Manhattan island; having Long island on the E. and New-Jersey and Staten island on the W. On the N. it opens into the Hudson; on the N. E. through East river, into the Sound; on the W. between Staten island and Bergen neck into Newark bay; and on the S. between Staten and Long islands, through the *Narrows*, into Amboy bay and the Atlantic.

South bay is an arm of lake Champlain, at its southwestern extremity. Wood creek flows into the strait which joins it with the lake.

Hungry bay is an arm of lake Ontario, 20 miles S. of the St. Lawrence.

Mountains.] The Catskill mountains are the highest land in the state. They lie within 2 miles of the Hudson, and are the N. E. termination of the Alleghany ridge. The following statement of the heights of mountains on Hudson river, was calculated by Capt. Patridge, and is deemed correct.

HIGHLANDS.

Anthony's Nose,	915 feet.	Su ar Loaf,	866 feet.
Bare Mount,	1350	Bull Hill,	1484
Crow Nest,	1418	Break Neck,	1187
Butter Hill,	1529	Old Beacon,	1471
New Beacon,	1585	W. P. Plain,	188
Port Putman,	598 feet.		

CATSKILL MOUNTAINS.

Round Top,	3105 feet.	High Peak,	3019 feet.
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BELOW NEW-YORK.

Neversink Heights,	282 feet.	Staten Island,	307 feet.
Hempstead Harbor Hill,	319 feet.		

A part of Taghconnuc mountain is in Columbia county. The highlands front upon the Hudson for 18 miles, and are between 40 and 60 N. of New-York. They are the N. E. termination of the Blue ridge.

Botany.] The most common forest trees west of the Chenango are the sugar maple, beech, basswood, oak, and elm. The hilly parts are generally covered with oak. Here and elsewhere also are found the pine, spruce, whitewood, wild cherry, white, black, and shag-bark walnut, wild plum, sassafras, dogwood, cedar, fir, butternut, and aspen. Of shrubs and plants the most noted are wild hops, fox grapes, ginseng, sarsaparilla, snakeroot, spikenard, mandrake, wild gooseberry, and cranberry.

Zoology.] Bears, wolves, and deer, are still found in the forests. Squirrels are very numerous.

Minerals.] Iron ore is spread over the state. Lead is found in Herkimer county, and silver at Philipsburg. Mines of zinc and copper have been discovered. Slate and plaster of Paris are abundant. Coal, sulphur, marble, and isingglass have also been found.

Mineral Waters.] The salt springs have already been noticed. Ballstown springs, 30 miles N. of Albany, are in the bottom of a basin of about 50 acres in extent. The soil, for 6 miles around, is poor and sandy. The waters are strongly impregnated with iron

soda, common salt, and carbonic acid. Six fountains have already been opened, including a new one lately discovered, which rises through a tube, 4 or 5 feet from the surface of the earth. Their temperature in summer is 49° of Fahrenheit. They are deemed a specific in loss of appetite and indigestion, and are highly serviceable in hypochondriac and bilious cases. In obstructions and cutaneous disorders, and in the stone and gravel. They are hurtful in inflammatory disorders and consumptions.

Saratoga springs are 10 miles northeast from Ballstown, in a shallow vale or marsh. The ingredients are the same in both springs, but are strongest in those of Saratoga. These springs are very efficacious in rheumatism. One of these springs is covered by a natural calcareous curve in shape of the frustum of a cone. It is 6 feet high, and the orifice at the top is 6 inches over. It is said 4213 persons visited these springs in 1818.

New-Lebanon spring is in the township of Canaan, 29 miles S. E. from Albany. It is on the south side, near the bottom, of a gentle ascent, a few rods west from the Massachusetts line. The waters are warm, and their mineral properties are not very strongly marked.

In the town of Rensselaer, nearly opposite Albany, a mineral spring has been discovered, with many of the properties of those of Saratoga.

In Farmington, 12 miles from Geneva, there are two large sulphur springs about 100 rods apart. Around each the sulphur is for some distance 3 or 4 feet deep. There is another in Litchfield, 15 miles south from Utica. There is also a spring which emits a highly sulphureous smell on the west bank of Racket river, 12 miles from its mouth.

Natural Curiosities.] The falls of Niagara have already been described.

There is a singular cave at Rhinebec in Dutchess county. The entrance between two large rocks on the declivity of a steep hill, is a short and small horizontal passage, to a narrow perpendicular passage, about 10 feet long, from 8 to 10 broad, and 4 high. A narrow passage conducts from this to a second room, 13 feet long, but higher and broader than the first. Numerous calcareous stalactites depend from the roof of this room, and some stalagmites rise from the floor. These in various places have met, and form solid pillars reaching from the roof to the floor, some of more than two feet in circumference. This cave was discovered in 1792, by a lad, accidentally passing near its entrance. On prying into the gloomy recess, he saw a ladder placed in the perpendicular passage, at the foot of which he found several bits of cloth and pieces of leather scattered about the floor. Probably it had been the resort, during the war, of some of that numerous class of mankind, who find daylight a serious inconvenience.

In Willsborough, on lake Champlain, is a curious split rock. The whole coast of the lake, for a number of miles, is formed by rude and rocky mountains, which seem to hang over the water,

and threaten the passing sailor. From one extremity of these cliffs a rocky promontory projected about 50 yards into the lake. By some violent convulsion of nature it has been broken off, and removed from the main rock about 20 feet. The opposite sides exactly fit each other, the prominences of each corresponding perfectly with the cavities of the other. The point broken off contains about half an acre, and is covered with wood. The height of the rock above the water, on each side of the fissure is about 12 feet.

In Montgomery county, a small, but rapid stream, falls into Scroon or Scaroon lake. At some distance above its mouth it runs under a hill, whose base is 60 or 70 yards in diameter, forming a curious and beautiful arch in the rock, as white as snow.

In the southeast part of lake Erie about 20 rods from the shore, there is a curious spring, which boils up from the bottom of the lake. The water is here 4 and a half feet deep. The water of the spring rises with some force through that of the lake, and may be collected. It takes fire when a brand is thrust into it; and, when drank, proves a powerful emetic.

On the north side of the mountains, in Orange county, is a very valuable tract called *Drowned Lands*, containing about 40 or 50,000 acres. The waters, which descend from the surrounding hills, being but slowly discharged by the river issuing from it, cover these vast meadows every winter and render them extremely fertile; but they expose the inhabitants in the vicinity to intermitments. The Wallkill river, which passes through this extensive *amphibious* tract, and empties into Hudson river, is, in the spring, stored with very large eels in great plenty; the bottom of this river is a broken rock; and it is supposed, that for 2000l. the channel might be deepened so as to let off all the waters from the meadows, and thereby redeem from the floods a large tract of rich land, for grass, hemp, and Indian corn.

Islands.] Long island is separated from Connecticut and the county of West-Chester, by the sound; from York island by the East river; and from Staten island by the Narrows. It is 140 miles long, and from 1 to 15 broad. When first discovered, Wawayandance, the principal sachem in Suffolk county, lived at Montauk. The names of the tribes in the eastern part of the island, when it was discovered, were the *Matiniccoks*, west of Huntington; the *Massapcogs*, in the south part of that town; the *Sicatugs*, in Islip; the *Nipaquaugu*, in Smithtown; the *Shinnacocks*, in Southampton; the *Corchangs*, in Southold; and the *Montauketts*, in Easthampton. A few of their descendants are still found on Montauk. In 1633, Sassacus, the Pequod sachem, had for some time exercised royal power over these Indians; and, after the destruction of the Pequods, the colony of Connecticut had jurisdiction over this part of the island. Its territorial right appears not to have been relinquished, till the year 1664. The population of the island, in 1790, was 41,782; in 1800, 42,097; and in 1810, 48,752. It is divided into 3 counties, King's, Queen's, and Suffolk. King's,

at the west end of the island, is 10 miles long, and 8 broad, contains 6 townships, and is inhabited chiefly by Dutch. Its largest town is Brooklyn.

Queen's lies east of King's, is 30 miles long, and 12 broad, contains 6 townships, and is inhabited partly by Dutch and partly by English. Hempstead, the most populous township, contains 5804 inhabitants. Suffolk is 100 miles long, and 10 broad, and comprehends two thirds of the island. It contains 9 townships, and is inhabited almost wholly by English. It was first settled by emigrants from Lynn, in Massachusetts. A ridge of hills extends, on the north side of the island, from Southold to the W. end of the island. The north side is chiefly flat land, naturally covered with yellow pines. King's county, and the western part of Queen's, have been rendered fertile and productive by husbandry. The greater part of Suffolk has a poor, thin soil, and much of it is not worth cultivating. The north side is the best. The productions are cattle, sheep, hogs, poultry, cord-wood, clover seed, flax seed, barley, maize, hops, deer skins, and venison for the New-York market. Hempstead plain, in the eastern part of Queen's, is 16 miles long from east to west, and 8 broad. It is a perfect level, covered with nothing but a wild, rank grass, except in three or four places, in which are found a few trees of stunted growth: (these places are called *Islands*.) The soil of the plain is black, and apparently rich; but it is, in fact, remarkably barren. It is an immense open common, on which a considerable number of cattle graze, during the warm season, for a meagre subsistence. It is a favorite race ground with the New-York sportsmen, and numbers of them come here annually to shoot plover, which are very abundant. South of the plain, lies another, 2 miles wide, called the *Shrub-oak plain*, from its being every where covered with shrivelled shrub-oaks, none of which are above 4 feet high, and many of them probably 100 years old. Great numbers of deer and grouse occupy this strange retreat. Hempstead hill, in this county, (Queen's) is 319 feet high, from high water mark. An extensive shrub-oak plain lies on the eastern border of Hempstead plain, in Suffolk county.

The eastern end of the island opens like a shark's mouth. The southern promontory is the township of Easthampton, and is 20 miles long and rarely more than 1 wide. The extremity is a cape, well known to mariners, called Montauk point; on which a lighthouse is erected, 100 feet high from the surface of the hill, and 170 from that of the ocean. The country west of the point for 7 miles is somewhat uneven; but is solid land with a tolerable soil, and is covered with grass. West of this for 11 miles lies a narrow marshy sand beach, which has been gradually gained from the ocean; although, in high tides, its waves, even now, claim the greater part of it. Its Indian name was *Nepheag*, or *water land*. The land west of this beach for two miles is a high sandy plain, in which the sand is blown by the winds into hills of every variety of form. The northern promontory is chiefly in the township of Southold, and is 12 miles

long, and every where narrow. Its cape is called Oyster point bay.

The bay between these two promontories is called Great or Peconic bay. A town at the head of the bay is called Riverhead. It embosoms a number of islands. Of these Gardiner's island is 7 miles long, contains 3000 acres, was settled in 1639 by Lion Gardiner, and is now the property of one of his descendants. Shelter island, called by the Indians *Lanhansac-a-hagquatwomac*, or *the island sheltered by other islands*, contains about 4,000 acres; and is separated by two ferries of $\frac{3}{4}$ of a mile from Southold, and one of the same width from Hog's neck in Southampton. Robin's island contains 400 acres of middling land, and produces wood, bricks, corn, and wool. The principal bay on the N. side of the island is Huntington harbor.

The principal rivers are Peconic, river, which empties into Great bay, Connecticut river which empties on the S. side of the island. Roconkama pond, near the centre of the island, between Smithtown and Islip, is observed to rise and fall every 7 years. On the S. side of the island, a narrow beach puts out westward from Southampton, reaching to the west end of the island, and is not less than 100 miles long. There are various inlets through the beach, which admit vessels of 60 or 70 tons. The long narrow bay formed by the beach is, in the widest places, 3 miles broad.

Manhattan island has already been described.

Staten island, 9 miles S. of Manhattan island, is separated by Arthur Kull sound from New-Jersey, on the N. and W.; has York bay on the N. E. the Narrows on the E. and Amboy bay on the S. 10. It constitutes the county of Richmond, is 18 miles long, and 6 or 7 broad. It contains 4 townships. The population in 1790, was 3835; in 1800, 4563; in 1810, 5347. The inhabitants are chiefly of Dutch and French extraction. The land is generally rough and hilly; Tompkins' hill the highest point, is 307 feet above the level of the sea, but on the south side is a considerable tract of level good land. The chief village is Richmond, in the township, of Southfield. Fresh Kill is the name of the largest creek.

Fishers' island lies off Stonington harbor in Connecticut. It is 9 miles long, and contains about 4000 acres, and 9 or 10 families. It is included in the township of Southold. The land is uneven. The produce is corn, sheep, and cheese.

Great and Little Gull islands lie west of Fisher's island. The first contains 12 acres of fine rich soil; the last is a rock of half an acre, on which a lighthouse is erected.

Plum island lies west of these, and is separated from Southold by a strait of $\frac{1}{2}$ of a mile, called Plum Gut. It contains 800 acres of excellent land, and was bought of the old Long island sacheem, Wayandance, in 1657, by Samuel Wyllys, of Hartford, for a barrel of biscuit, and 100 fish-hooks and muxes (a kind of broadawl.) Its shores abound with black fish and lobsters.

Grand Isle, in Niagara river, belongs wholly to the state of New-York. It is 6 miles long, and 3 broad. The south end is 4 miles from Buffalo.

NEW-JERSEY.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT, BOUNDARIES, DIVISIONS, NAME, HISTORY, RELIGION, GOVERNMENT, POPULATION, MILITIA, MANNERS AND CUSTOMS, LITERATURE, CITIES AND TOWNS, PRACTICE OF PHYSIC, PRACTICE OF LAW, ROADS, BRIDGES, MANUFACTURES, COMMERCE.

Extent.] NEW-JERSEY is situated between lat. 39° and 41, 24 N. and between lon 74° and 75, 29 W. It is 160 miles long, from N. to S. Its least breadth, in the centre, is 42 miles; the greatest breadth, in the north, is 70, and in the south, 75. The state contains about 8320 square miles, or 5,324,000 acres. The quantity of land valued in this state, in assessing the U. States tax in 1799, was 2,788,282 acres, valued at \$27,287,981:89.

Boundaries.] On the N. is New-York, from which it is separated by a line drawn from the mouth of Mahakamak river, in lat. 41, 24, to a point in Hudson river, in lat. 41°; on the E. and S. E it has Hudson river, New-York bay, and the Atlantic ocean; on the S. W. and W. Delaware bay and river, which separate this state from the states of Delaware and Pennsylvania.

Divisions.] The state is divided into 13 counties and 116 towns.

Counties.	No. of towns.	Population in 1790.	Population in 1800.	Population in 1810.	Chief towns.
Cape May	3	2,571	3,066	3,632	Court House
Cumberland	8	8,248	9,529	12,670	Bridgetown
Salem	9	10,437	11,371	12,791	Salem
Gloucester	10	13,360	16,115	19,744	Woodbury Gloucester
Burlington	12	18,095	21,521	24,979	Burlington Bordentown
Hunterdon	10	20,253	21,261	24,553	Trenton
Sussex*	15	19,500	22,534	25,549	Newtown
Bergen	7	12,601	15,156	16,603	Hackensack
Essex	10	17,785	22,269	25,984	Newark Elizabethtown
Middlesex	8	15,956	17,890	20,381	New Brunswick
Monmouth†	7	16,918	19,872	22,150	Freehold
Somerset	7	12,206	12,815	14,728	Boundbrook
Morris	10	16,216	17,750	21,828	Morristown
Total 13	116	184,139	211,149	245,562	

* The 7 counties named above Sussex lie from S. to N. on Delaware river. Cape May and Gloucester extend across to the sea.

† These 4 next counties lie from N. to S. on the eastern side of the state.

Name.] In the original patent by the duke of York to Lord Berkeley and Sir George Carteret, the province is called *Nova Cesarea*, or *New-Jersey*. This name was given in compliment to Sir George, whose family came from the isle of Jersey. It had previously been considered a part of *New-Netherlanda*.

History.] This territory, in 1664, was included in the patent of Charles II. to his brother, the Duke of York and Albany, who soon after conveyed it to Berkeley and Carteret. In the same year, 3 inhabitants of Long island purchased a tract of land of the Indians; and, settling on it, called it Elizabethtown.

The next year the colony received its own governor, Sir George Carteret, and became a distinct province.

In 1676 the province was divided into East and West-Jersey. East-Jersey was released, by the assignees of Lord Berkeley, to Carteret; who, in return, conveyed to them West-Jersey. The government of the first was retained by Carteret, and that of the last was claimed by the duke of York. In 1680, the duke restored the government of West-Jersey to the proprietors. Two years after, Carteret transferred his right to East-Jersey, to William Penn and 11 associates, who conveyed one half of their interest to the earl of Perth and 11 others. Robert Barclay, author of the Apology, was chosen governor of East Jersey the following year.

In 1688 the Jerseys, with New-York, were annexed to New-England by royal authority, but the scheme miscarried.

In 1702 West-Jersey was resigned to, and in due form accepted by queen Anne, who united it to East-Jersey, and made both one royal government. The united provinces were called New-Jersey. New-York and New-Jersey had from that time a common governor, till the year 1738. The constitution of the state was formed in 1776.

This state, for several years, was occupied by the American and British armies during the revolutionary war. In proportion to her population and wealth, the losses of this state in men and property, were greater than those of any of the other states. When Gen. Washington was retreating through the Jerseys, almost forsaken, her militia constituted, for a time, the principal strength of his army. At the battle of Trenton (Dec. 26, 1776) the British received a check, which turned the tide of the war in favor of the United States. The battle of Princeton, the January following, obliged the British to retire to winter quarters. The battle of Monmouth was fought in June, 1778. Many towns and places in this state were rendered signal by some battle or exploit during the war.

Religion] Presbyterians are the most numerous denomination. In 1810, the churches in this state belonging to the presbytery of New-York separated and were formed into the presbytery of Jersey. There is another called the presbytery of New-Brunswick; and some of the churches farther west form a part of the presbytery of Philadelphia. The following was the state of these churches in 1811.

Presbyteries.	Churches.	Clergy.	Licentiates.
Jersey	22	18	3
New-Brunswick	52	19	5
Philadelphia	10	5	—
	—	—	—
	64	42	8

The Dutch Reformed church is divided into 3 classes.

Classes.	Churches.	Clergy.
New-Brunswick	14	12
Bergen	11	5
Paramus	8	4
	—	—
	33	21

The Episcopal church at that time comprised 24 churches and 10 clergymen.

The Baptist church is connected with the New-York and Philadelphia Baptist associations. The first then comprised 11 churches, 7 clergymen, and 1 licentiate; the last 19 churches, 11 clergymen, and 3 licentiates.

The Methodists make New-Jersey one of their districts, and divide it into 8 circuits. The district is committed to a presiding elder, and each circuit to an itinerant. These are appointed by the annual Philadelphia conference, and the itinerants are subject to an interchange once a year. The number of communicants in all the circuits, in 1811, was 6,739, of whom about 500 were people of color.

The Congregational churches are regulated by a convention. Their number is 9 and they have 5 clergymen.

New-Jersey, Pennsylvania, Delaware, and the eastern shore of Maryland, compose a district, which is under the direction of the yearly meeting of Friends at Philadelphia. Eleven quarterly meetings are held annually in this district; of which four are held in New Jersey. Eighteen monthly meetings are held here, and the Friends have 44 meeting houses in the state.

In 1818, the numbers of these denominations stood as follows:

<i>Presbyterians.</i>		<i>Dutch Reformed.</i>	
Churches.	Ministers.	Churches.	Ministers.
74	59	31	20
<i>Baptists.</i>		<i>Episcopalians.</i>	
Churches.	Ministers.	Churches.	Ministers.
30	23	24	11
<i>Congregationalists.</i>		<i>Friends.</i>	
Churches.	Ministers.	44 houses of worship.	
9	5		

Government] The legislature is composed of a legislative council and house of assembly. The council is chosen annually, and consists of 13 members; each county choosing one. A member must be a freeholder in the county, reside in it the year preceding his election, and possess property worth 1000*l*. The assembly consists of 35 members. They are chosen annually, must reside a year in the county previous to the election, be freeholders, and hold property worth 500*l*.

The executive is composed of a governor, chosen by a joint ballot of the legislature; a vice president, chosen by the council; and a privy council, consisting of any three members of the legislative council. The governor is president of the council, chancellor, surrogate general, and captain general.

The governor and legislative council are the high court of appeals, and have the sole power of pardoning. This court sits twice a year at Trenton.

The court of chancery is a court of law and equity, of which the governor is the sole judge. It is held 4 times a year at Trenton.

The supreme court consists of three judges, who continue in office 7 years, and sits 4 times a year at Trenton.

Circuit courts are held by a judge of the supreme court, twice a year in each county. Courts of oyer and terminer are held by a judge of the supreme court, and two or more judges of the common pleas, at the times of holding the circuit courts. Orphan's courts, or courts of probate, are composed of the judges of the common pleas in each county, and are held 4 times a year. Courts of common pleas are held at the same times with the orphan's courts, and consist of an indefinite number of judges, who hold their offices for 5 years. The whole number in the state, in 1810, was 168. Courts of quarter sessions are held the same week with those of common pleas, and are composed of the justices of the peace in each county. Justices courts are held by a single justice of the peace. These justices hold their offices 5 years, and have jurisdiction in cases not exceeding \$100. An appeal, however, lies to the common pleas. The number of attorneys at law in 1811, was 79.

The qualifications of a voter are property amounting to 50*l*. and a year's residence in the county previous to the election.

Population.] The number of inhabitants in New-Jersey was in the year

1738	{ 43,388 free inh. 3,981 slaves }	47,369	1790	{ 169,924 whites 11,423 slaves 2,792 free bl. }	184,139
1745	{ 56,797 free inh. 4,606 slaves }	61,403	1800	{ 194,325 whites 12,422 slaves 4,402 free bl. }	211,149
1784	{ free inh. slaves }	140,435	1810	{ 226,868 whites 10,851 slaves 7,843 free bl. }	245,562

The items of the census of 1810, were as follows :

	males.	females.	total.
Under 16 years of age	56,728	53,849	110,577
Between 16 and 45	42,625	42,553	85,178
45 and upwards	16,004	15,109	31,113
Total	115,357	111,511	226,868

New-Jersey was, by the census of 1790, in point of population, the ninth; by that of 1800 the tenth, and by that of 1810 the twelfth state in the union.

Militia.] The militia of New-Jersey according to the returns of 1810, consisted of

	men.
41 regiments of infantry	31,274
5 regiments of cavalry	1,652
1 regiment of artillery	784
<hr/> 47	<hr/> 33,710

These were commanded by 20 staff officers, 159 field officers, and 560 captains.

In 1818, the militia of this state amounted to 35,169.

Manners and Customs] Many circumstances concur to render these various in different parts of the state. The inhabitants are a collection of Low Dutch, Germans, English, Scotch, Irish, and New-Englanders, or their descendants. National attachment and mutual convenience have generally induced these several kinds of people to settle together in a body, and in this way their peculiar national manners, customs, and character are still preserved, especially among the poorer class of people, who have little intercourse with any but those of their own nation. Religion, although its tendency is to unite people in those things that are essential to happiness, occasions wide differences as to manners, customs, and even character. The Presbyterian, the Quaker, the Episcopalian, the Baptist, the German and Low Dutch Calvinist, the Methodist, and the Moravian, have each their distinguishing characteristics either in their worship, their discipline, or their dress. There is still another characteristic difference, distinct from either of the others, which arises from the intercourse of the inhabitants with different states. The people in West-Jersey trade to Philadelphia, and of course imitate their fashions, and imbibe their manners. The inhabitants of East-Jersey trade to New-York, and regulate their fashions and manners according to those in New-York. So that the difference, in regard to fashion and manners between East and West-Jersey, is nearly as great as between New-York and Philadelphia. Add to all these the differences common in all countries, arising from the various occupations of men, such as the civilian, the divine, the lawyer, the physician, the mechanic, the clownish, the decent, and the respectable farmer, all of whom have different pursuits, or pursue the same thing differently, and of course must have different ideas and manners;—when we take into view all these differences, (and all these differences exist in New-Jersey, and many of them are common to all the other states) it cannot be expected that many general observations will apply. It may, however, in truth be said, that the people of New-Jersey are generally industrious, frugal, and hospitable. There are, comparatively, but few men of learning in the state, nor can it be said that the people in general have a taste for the sciences. The poorer class, in which may be included a considerable proportion of the inhabitants of the whole state, are too inattentive to the education of their children, who are too generally left to grow up in ignorance. There are, however, a number of

gentlemen of the first rank in abilities and learning in the civil offices of the state, and in the several learned professions.

It is not the business of a geographer to compliment the ladies; nor would we be thought to do it when we say, that there is at least as great a number of industrious, discreet, amiable, genteel, and handsome women in New-Jersey, in proportion to the number of inhabitants, as in any of the United States.

Literature.] There is a college in New-Jersey, at Princeton, called Nassau Hall, founded by charter from John Hamilton, Esq. president of the council, about the year 1738, and enlarged by governor Belcher, in 1747. The charter delegates a power of granting to "the students of said college, or to any others thought worthy of them, all such degrees as are granted in either of our universities, or any other college in Great-Britain." It has 24 trustees. The governor of the state and the president of the college are, *ex officio*, two of them.

The establishment consists of a president, vice president, three professors, two tutors, and a grammar master. The president is also professor of moral philosophy, history, and eloquence. The vice president is also a professor of languages. There is a professor of mathematics and natural philosophy, including astronomy and chemistry, which is treated, not only in its relation to medicine, but to agriculture and manufactures, and there is also established a professorship of divinity. To the tutors is committed the instruction of the two lower classes in the college. The grammar master teaches writing, arithmetic, and the elements of the Latin and Greek languages.

When young gentlemen have read the Greek testament and those Latin writers, which are commonly read in schools before Virgil, and are well versed in Mair's introduction to the making of Latin, they are permitted to enter the lowest class in the college. The tutors then direct their studies in the classics, in arithmetic, and geography, during two years. Two years more are spent in the higher sciences under the professors, and the president; who give lectures on the different subjects mentioned above; at the same time presenting to the students a compend or syllabus of their lectures, which they are required to commit to memory, and on which they are to be examined daily by the professor, and more particularly four times in the year before the whole faculty, and such other gentlemen as may please to attend. The senior class also, in order to their receiving the first degree in the arts, is required to undergo two examinations in the presence of the faculty, and the trustees of the college; one in the month of April, and the other in the month of August. All the examinations in this college, except the daily ones by the professors, are held public. Lectures on select subjects, of the evidences of revealed religion, of Jewish and Christian antiquities, and of sacred criticism, are given on the sabbath evenings in the college hall, before all the students. Lectures on the system of divinity are given to a theological class, consisting of bachelors of arts, on Thursday evenings.

On Tuesday evenings the members of the same class, in presence of the president and such others as may choose to attend, produce in rotation, essays on some head of theology, or sermons on some text of scripture, which are subjected to the free remarks and criticisms of all who are present.

On Friday evenings, during the winter session the graduates, who reside in the college, and in the town, meet, for the purpose of improving themselves in style and composition, and for the discussion of questions literary, moral, and political. The greater part of the students are also divided into two societies for similar purposes, which meet, the one on Monday, the other on Wednesday evenings. Between these societies an ardent emulation exists, which is very friendly to the improvement of the students, and the good government of the institution. The members of the two societies in all public exhibitions, appear with different badges to distinguish them, which is another mean of promoting their emulation. It is a point of honor with them to admit none into their respective bodies, who maintain a remarkably bad standing in their class. If any member of either of the societies is subjected to any stigma or censure by the faculty of the college, for immorality or bad scholarship, he infallibly meets with a correspondent censure in his society; or, if the fault be considerable, is expelled from it.

The college being founded on private liberality and zeal, and not being yet taken under the patronage of the state, its reputation, and even its existence, depends on the improvement of the students and the exactness of its moral discipline, which the associations before mentioned contribute greatly to promote.

There were, some years ago, in the winter session, generally from 70 to 80 students in the four classes of the college, exclusive of the grammar school. In the summer session from 80 to 90. In the winter session of 1819, the number was 175. There has been an annual increase in 8 years from 80 to 175. A considerable number of bachelors of arts, who are students of theology or law, constantly reside in the college, or the town, and are partakers in those exercises that have been already mentioned.

The annual income of the college at present, by fees of the students and otherwise, is about 100 0/. It has also funds in possession, through the pious liberality of Mr. James Leslie of New-York and Mrs. Esther Richards of Rahway, to the amount of \$10,000 for the education of poor and pious youth for the ministry of the gospel; and an estate in Philadelphia for the same purpose, of between 2 and 300/. per annum, a legacy of the late Mr. Hugh Hodge, a man of eminent piety.

The college library was almost wholly destroyed during the late war, and again in March, 1862, by a fire, supposed kindled by an incendiary; but out of the remains and by liberal donations it has collected one of about 2 or 3000 volumes, which has since been increased to about 8000. There are besides in the college two libraries belonging to the two literary societies into which the students

have arranged themselves, and the library of the president, consisting of 1000 volumes more, is always open to the students.

Before the war, this college was furnished with a philosophical apparatus, worth 500*l*. which (except the elegant orrery constructed by Mr. Rittenhouse) was almost entirely destroyed by the British army in the late war. The philosophical apparatus is now complete, and a valuable cabinet of mineralogy and natural history has been added.

The college edifice is of stone, 180 feet in length, 52 in breadth, and four stories high, the length of the two wings is 60 feet, breadth 30, 4 stories high, the whole divided into 42 convenient chambers for the accommodation of the students, besides a dining hall, chapel, and room for the library. Its situation is elevated and very pleasant and healthful. It is remarkable, that since the removal of the college to Princeton in 1756, there have been but 5 or 6 deaths among the students. The view from the college balcony is extensive and charming.

The college has been under the care of a succession of presidents, eminent for piety and learning; and has furnished a number of civilians, divines, and physicians of the first rank in America.*

A Theological Institution established by the General Assembly of the Presbyterian church, in 18*2*, is annexed to this college, which has two professors, and about 50 or 60 students. It has greatly prospered since its establishment, and promises to be an eminent blessing to the churches in our rising country.

Queen's college, in New-Brunswick, was founded by ministers of the Dutch church, for the education of their clergy, and incorporated in 1770. For a long period its prospects were gloomy, and its success discouraging. Within a few years, under its venerable head, it has become a flourishing seminary. Its edifice is of stone, 3 stories high, unfinished. Its legislature is a board of trustees consisting of 29 members, of whom the president, governor, and chief justice, are always three. The instructors are a president, who is professor of theology; a vice president, who is professor of moral philosophy and belles lettres; a professor of mathematics, natural philosophy and astronomy: 1 tutor and a principal of the grammar school connected with the college.

A Theological Institution has also been annexed to this college, by the church to whom it belongs, which is of a highly respectable character. It has 2 professors, one of didactic theology, and one

* Accessus.	Presidents.	Exitus.
1746	Rev. Jonathan Dickenson	1747
1748	Rev. Aaron Burr	1757
1758	Rev. Jonathan Edwards	1758
1758	Rev. Samuel Davies	1760
1761	Rev. Samuel Finley D.D.	1766
1767	Rev. John Witherspoon, D.D. L.L.D.	1794
1795	Rev. Sam. Stanhope Smith, D.D. L.L.D. resi'd.	1812
1812	Rev. Ashbel Green, D.D. L.L.D.	

of ecclesiastical history, and pastoral theology, 16 students, and a library of about 800 volumes.

There are 15 incorporated academies in New-Jersey; scattered in different parts of the state, in the principal towns.

Cities and Towns.] **NEWARK** is pleasantly situated at a small distance W. of the Passaic, near its mouth in Newark bay, and 9 miles W. of the city of New-York. It is a flourishing, well built town, and contains a handsome court house, a jail, academy, 2 Presbyterian churches, 1 Episcopal, 1 Baptist, and 1 Methodist church. The town is celebrated for the excellence of its cider, and is the seat of extensive manufactures of shoes and leather. The township contained in 1810, 8008 inhabitants.

TRENTON, the seat of government, with city privileges, stands on the east bank of the Delaware, opposite the falls, and 28 miles by land, and 34 by water, from Philadelphia, lat. 40 15 N. The public buildings are a state house, court house, jail academy, 1 Presbyterian church, 1 Episcopal, 1 Baptist, 1 Methodist, and 1 Friends meeting. Here are 2 banks and 2 cotton factories. Trenton is a thoroughfare between New-York and Philadelphia. A number of elegant country seats are erected on the Delaware, in the neighborhood of the town, and an elegant covered bridge across this river connects this town with Morrisville on the Pennsylvania bank. The population of the town in 1790, was 1946; and in 1810, 3002.

Connected with this city is Lamberton, a suburb, adjoining it on the south, where is a Catholic, and a Baptist church. Both places contain about 600 houses. The Delaware is navigable no farther than this place. A steam boat plies between this and Philadelphia.

PERTH AMBOY (city) took its name from James Drummond, earl of Perth; and Ambo, the Indian name for point, and stands on a neck of land included between Raritan river and Arthur Kill sound. Its situation is high and healthy. It lies open to Sandy Hook, and has one of the best harbors on the continent. Vessels from sea may enter it in one tide, in almost any weather. Great efforts have been made, and legislative encouragements offered, to render it a place of trade, but without success. This town was early incorporated with city privileges, and continued to send two members to the general assembly until the revolution. Until this event, it was the capital of East-Jersey; and the legislature and supreme court used to sit here and at Burlington alternately. It has an Episcopal and a Presbyterian place of worship, and an academy. It had, in 1810, 815 inhabitants, and in 1816, owned 10,899 tons of shipping.

BURLINGTON is built chiefly on an island in the Delaware, 1 mile long, $\frac{1}{2}$ of a mile broad, and 18 N. E. from Philadelphia. The public buildings are 4 meeting houses, for Friends, Episcopalians, Methodists and Baptists, one for each, an academy, city hall, and jail. The chief streets are spacious and ornamented with trees. The Delaware, opposite the town, is about a mile wide; and

under shelter of Mittinnicunk and Burlington islands, affords a safe and convenient harbor. It is commodiously situated for trade, but is too near the opulent city of Philadelphia to admit of any considerable increase of foreign commerce. Here is a nail manufactory, and distillery.

The city was a free port under the state. The island of Burlington was laid out, and the first settlements made as early as 1677. In 1682, the island of Mittinnicunk, or Free School island, was given for the use of the city of Burlington; the yearly profits (1804) arising from it are appropriated for the education of poor children.

In 1803, it contained, 282 houses, and 2256 inhabitants; and in 1810, 2419 inhabitants.

NEW-BRUNSWICK is built on the S. W. bank of the Raritan, over which is a handsome bridge, 14 miles from its mouth, and 53 N. E. from Philadelphia. The great road from New-York to Philadelphia passes through this town. The public buildings are the college edifice of Queen's college, belonging to the Dutch Reformed church, 1 Episcopal church, 1 Dutch Reformed, 1 Presbyterian, 1 Methodist and 1 Baptist church. The ice, at the breaking up of the river in winter, frequently lodges on the shallow fording place, just opposite this city, and forms a temporary dam, which occasions the water to rise many feet above its usual height, and sometimes to overflow the lower floors of those houses which are not guarded against this inconvenience, by having their foundations elevated. The streets are raised and paved with stone. The water in the springs and wells is generally bad. The inhabitants are building on the hill above the town, which is very pleasant, and commands a good prospect. The citizens have a considerable inland trade, and several small vessels belonging to the port. The population in 1810, was 6312. Half of the inhabitants are of Dutch origin.

PRINCETON is a pleasant village of about 100 houses, 52 miles from New-York, and 42 from Philadelphia. Its public buildings are a large college edifice of stone, already described, a Presbyterian church of brick, and a handsome brick edifice for the Theological Institution. Its situation is remarkably healthy.

ELIZABETHTOWN (borough) is 15 miles S. S. W. from New-York. Its situation is pleasant, and its soil equal in fertility to any in the state. In the compact part of the town, there are about 200 houses. The public buildings are a very handsome Presbyterian church of brick, an Episcopal church also of brick, a Methodist church, and an academy. This is one of the oldest towns in the state. It was purchased of the Indians as early as 1664, and was settled soon after. In 1810, it had 2977 inhabitants. A steam boat plies between this borough and New-York.

Swedesborough stands on Raccoon creek, has 60 or 70 good houses, and a large, elegant Episcopal church. It was so named by the Swedes, who are numerous in this part of the state, though they have now mingled with German, Irish, Scotch, and English people. Here is a woollen manufactory.

Salem is an ancient town. Here is the largest Quaker meeting house in the state; an Episcopal church, a Baptist, and a Methodist

church, an academy, a court house, and jail. The dwelling houses are about 150, mostly of brick, some of them elegant, and 929 inhabitants. The town stands on a creek $3\frac{1}{2}$ miles from Delaware bay, 37 miles S. S. W. from Philadelphia.

Practice of Physic.] There is a medical society in this state, divided into Eastern and Western districts, consisting of about 30 of their most respectable physicians, who meet twice a year. No person is admitted to the practice of physic, without a license from the supreme court, founded on a certificate from this society, or at least two of its members, testifying to his skill and abilities. It is remarkable, that in the county of Cape May, no regular physician has ever found support. Medicine has been administered by women, except in some extraordinary cases.

Practice of Law] No person is permitted to practise as an attorney in any court without a license from the governor. This cannot be obtained, unless the candidate shall be above 21 years of age, and shall have served a regular clerkship with some licensed attorney for 4 years, and have taken a degree in some public college, otherwise he must serve 5 years. This regulation is considered by some a depreciation of rights in regard to citizens of other states, and a bar to the progress of knowledge. He must also submit to an examination by three of the most eminent counsellors in the state, in the presence of the judges of the supreme court. After three years practice as an attorney, he becomes a candidate for a counsellor's license, which is granted on a like examination. In 1810, there were 95 attorneys and counsellors at law in this state.

Roads.] A turnpike road, 43 miles long, has lately been completed from Trenton through New-Brunswick, to Elizabethtown. The greatest angle of ascent is 3 degrees. It is nearly in a straight line; and is 36 feet wide, 15 of which are covered with 6 inches of gravel. The expense was \$2,500 for every mile. Another has been begun from New-Brunswick to Easton, at the mouth of the Lchigh, 43 miles.

Bridges.] A neat wooden bridge, 1000 feet in length, over the Hackinsac, and another over the Passaic river, 500 feet long, connected by a very long causeway, have been erected at a great expense. The post road from New-York to Philadelphia passes over these bridges; but the route is more circuitous, and the roads more disagreeable than the former way over the old ferries, where, in the opinion of many, the bridges should have been built.

Another bridge over Raritan river, opposite the city of Brunswick, about 1000 feet in length, and wide enough for two carriages to pass abreast, besides a foot way, was completed at a great expense in the fall of 1795. The wood work of the bridge rests on 11 neat stone pillars, besides the abutments. This is a very neat and expensive bridge.

A very handsome, slightly bridge over the Delaware below the falls at Trenton, was opened October, 1806, which is a great convenience in passing between Philadelphia and New-York. It is 570 feet long, from abutment to abutment. The superstructure consists of three spacious arches, resting on the abutments, and 3 stone piers, 34 by 40 feet. The whole is covered.

Manufactures.] In Trenton, Newark, and Elizabethtown, are a considerable number of very valuable tanneries, where excellent leather in large quantities is made, and a part of it exported to the neighboring markets. Newark is the seat of a considerable shoe manufactory. In 1796, the leather made in 9 large tanneries in this place, was chiefly manufactured into shoes, by about 200 workmen, who at that period made annually about 100,000 pair of shoes. Steel was manufactured at Trenton in the time of the war, but not considerably since. In Gloucester county is a glass house. Paper mills and nail manufactories are erected and worked to good advantage in several parts of the state. Wheat also is manufactured into flour, and Indian corn into meal, to good account, in the western counties, where wheat is the staple commodity. But the iron manufacture is, of all others, the greatest source of wealth to the state. Iron works are erected in Gloucester, Burlington, Sussex, Morris, and other counties. The mountains in the county of Morris give rise to a number of streams necessary and convenient for these works, and at the same time furnish a copious supply of wood and ore of a superior quality. In this county alone are no less than seven rich iron mines, from which might be taken ore sufficient to supply the United States; and to work it into iron are two furnaces, two rolling and slitting mills, and about 30 forges, containing from two to four fires each. These works produce annually about 540 tons of bar iron, 800 tons of pigs, besides large quantities of hollow ware, sheet iron and nail rods. In the whole state, it is supposed there is yearly made about 1200 tons of bar iron, 1200 do. of pigs, 80 do. of nail rods, exclusive of hollow ware, and various other castings, of which vast quantities are made.

A manufacturing company was incorporated in 1791, by the legislature of this state, and favored with very great privileges. The better to encourage every kind of manufacture, a subscription was opened, under the patronage of the secretary of the treasury of the United States. A sum of upwards of \$500,000 was almost immediately subscribed, and the directors of the association took the proper measures to carry into effect their extensive plan. They fixed on the Great Falls, in Passaic river, and the ground adjoining, for the erection of the mills and the town, which they called PATTERSON. Every advantage appeared to be concentrated in this delightful situation, to make it one of the most eligible in the United States, for the permanent establishment of manufactures. A large sum of money has been expended, but the expectations of the proprietors have not been realized.

The amount of the manufactures of this state in 1810, was \$7,054,594.

Commerce.] The amount of exports from the ports of this state, in 1810, was \$430,267; in 1817, \$5,849; but a much greater amount is annually exported from the state through New-York and Philadelphia. These two cities import almost all the foreign merchandize consumed in the state. The articles exported are flour, wheat, horses, cattle, hams, cider, lumber, flaxseed, leather and iron. The New-York and Philadelphia markets are constantly supplied

with large quantities of provisions and fruits from New-Jersey. The aggregate tonnage of the state of New-Jersey in the year 1805, was 22,958 tons, in 1816, 33,211.

CHAP. II.

NATURAL GEOGRAPHY.

FACE OF THE COUNTRY, SOIL AND AGRICULTURE, RIVERS, BAYS, MOUNTAINS, BOTANY, MINERALOGY, MINERAL WATERS, CURIOSITIES.

Face of the Country.] THE three northern counties are mountainous. The next four are agreeably diversified with hills and vallies. But at Sandy Hook commences that long range of flat land, which lines the coast of the middle and southern states. The greater part of the six southern counties are of this description. The land here, throughout, has the appearance of *made ground*. At the depth of 10, 20, or 30 feet, wood, roots, and reeds are very often found; and at the depth of 50, salt marsh is discovered, every where within 30 miles of the coast. Shells of oysters and clams are met with also at every depth. Some years since, by a sudden irruption of the sea, at Long Branch, in Monmouth county, the shore was violently torn away for a considerable distance, and the skeleton of a huge carnivorous animal was discovered. Since that time the bones of a similar animal have been discovered in the county of Gloucester.

Soil and Agriculture.] The mountainous parts of the state have generally a strong soil, and form a fine grazing country. The farmers there raise great numbers of cattle for the markets of New-York and Philadelphia. They also raise wheat, rye, maize, buck-wheat, potatoes, oats, and barley, enough for their own consumption. They keep large dairies, and make great quantities of butter and cheese. In the counties that are uneven and hilly, the soil is likewise generally rich, and very productive of the various kinds of grain, particularly wheat and maize. Near New-York and Philadelphia, great attention has been paid to the cultivation of fruit and vegetables: and the finest apples, pears, peaches, plums, cherries, strawberries, raspberries, and melons, are constantly carried to these markets. Fine orchards abound in all the northern half of the state; and the cider of New-Jersey, particularly that of Newark, is of proverbial excellence. Maple sugar is made in considerable quantities in the county of Sussex. A narrow tract of country on the Delaware, in Burlington and Gloucester counties, is rich and fertile; as are various similar tracts, in the southern half of the state, on the small rivers and creeks. In Salem, Cumberland, and Cape May, there are also very extensive tracts of salt meadow on the river and bay. In Gloucester and Burlington, similar tracts have been recovered by sluices and mounds from the inroads of the sea, and are now rendered rich, fresh meadows. With these exceptions the greater part, at least

four fifths, of the 6 southern counties, or two fifths of the whole state, are barren. They produce little else but shrub-oaks and yellow pines. They yield, however, an immense quantity of bog iron ore, which is worked up in these counties. The inhabitants raise a little maize, rye, and potatoes; but subsist chiefly by feeding cattle on the salt meadows, and by fishing on the shores and in the creeks and rivers.

Rivers.] The Delaware and Hudson are on the frontiers. The Wallkill a branch of the Hudson, rises in Sussex county.

Raritan river is formed by two considerable streams, called the north and south branches; one of which has its source in Morris, the other in Hunterdon county. It passes by Brunswick and Amboy, and mingles with the waters of the Arthur Kill sound, and helps to form the fine harbor of Amboy. It is a mile wide at its mouth, 250 yards at Brunswick, and is navigable about 16 miles. It is supposed that this river is capable of a very steady lock navigation, as high as the junction of the north and south branches; and thence up the south branch to Grandin's bridge in Kingwood. Thence to Delaware river is 10 or 12 miles. It is supposed a portage will be here established by a turnpike road; or the waters of the Raritan may be united with those of the Delaware, by a canal from the south branch of the Raritan to Musconecunk river, which empties into the Delaware; or from Capoolong creek, a water of the Raritan, emptying at Grandin's bridge, and Necessacaway, a water of the Delaware. It is supposed also that an inland navigation from Philadelphia to New-York may be effected by proceeding up the Asanpink, (a water of the Delaware, emptying at Trenton) towards Princeton; and from thence by a canal to the Millstone, a water of the river to New-Brunswick.

At Raritan hills, through which this river passes, is a small cascade, where the water falls 15 or 20 feet, very romantically between two rocks. This river, opposite to Brunswick, is so shallow that it is fordable at low water with horses and carriages, but a little below it deepens so fast that a 20 gun ship may ride securely at any time of tide. The tide, however, rises so high that large shallops pass a mile above the ford; so that it is no uncommon thing to see vessels of considerable burden riding at anchor, and a number of large river craft lying above, some dry, and others on their beam ends for want of water, within gun shot of each other.

The Passaic is a very crooked river. It rises in a pond in the county of Orange, (New-York) and runs about 20 miles before it enters New-Jersey. Pursuing a southerly course, it receives the Pegunnoc and the Rockaway, from the west, and falls into Newark bay, after a course of about 65 miles. It is navigable 10 miles, and is 230 yards wide at the ferry. The fall in this river at Patterson is one of the most interesting cataracts in the union. The river above the fall, is about 50 yards wide; and moves with a slow and gentle current, till within a short distance of a deep cleft in a rock, which crosses the bed of the river. Down this cleft it is precipitated, in one entire sheet, upwards of 70 feet. The whole scenery is uncommonly wild and picturesque.

Hackinsac river rises in the county of Rockland, in New-York, and running in a direction parallel with the Hudson for 40 miles. falls into Newark bay, a little distance east of the Passaic. It is navigable 15 miles.

Great Egg Harbor river rises in Gloucester, and runs southeast 45 miles, to the Atlantic, emptying into Great Egg Harbor bay. It is navigable 20 miles for boats of 200 tons.

Maurice river runs south by east 30 miles, and empties into Delaware bay. It is navigable for sloops of 100 tons, 20 miles; and, for small craft, nearly to its source. Most of the little creeks on the coast are navigable for boats the greater part of their course.

The Musconecunk runs southwest about 40 miles, and falls into the Delaware, a little below Easton. The other branches of the Delaware are Flatkill, Paulinskill, the Pequest, and Rancocas.

Bays.] Delaware bay is the southwestern boundary of this state; and New-York bay lies east of Bergen neck. These have been described. Newark bay lies west of Bergen neck, and is about 6 miles deep, and 2 wide.

Amboy bay, between Staten island and Middleton, is about 15 miles deep; and, in the widest part, 12 broad. It is of a triangular shape, and opens between Sandy Hook (on which stands a light-house 100 feet high) and Long island, into the Atlantic. At the head of the bay, Arthur Kull sound connects it with Newark bay and New-York bay; and, at the northeastern angle, it opens through the Narrows and New-York bay, into the Hudson and Long Island sound. A long narrow bay stretches along the coast from Muletegun river to cape May. It is 80 miles long, and rarely more than 3 wide. Its eastern limit is a string of sand islands, separated by a number of inlets. Various names are given to the different parts of the bay. Arthur Kull sound is the narrow strip of water between Staten island and the Jersey main. The northeastern end opens into New-York bay, between Bergen neck and that island; and the southwestern into Amboy bay, between the same island and Amboy. It is about 22 miles long, and rarely 1 mile wide.

Mountains.] The South mountain, which is one ridge of the great Allegany range, crosses this state in about latitude 41°. This mountain embosoms such amazing quantities of iron ore, that it may not improperly be called the *Iron mountain*. The Kittatinny ridge passes through this state, north of the South mountain. Several spurs from these mountains are projected in a southern direction. One passes between Springfield and Chatham. Another runs west of it, by Morristown, Baskinridge, and Vealtown. The noted highlands of Neversink and Center hill, are almost the only hills within the distance of many miles from the sea coast. The highlands of Neversink are on the sea coast near Sandy Hook, in the township of Middletown, and are the first lands that are discovered by mariners, as they come upon the coast. They rise 282 feet above the level of high water mark.

Botany.] The natural growth, in the northern half of the state, consists of the various kinds of oak, walnut, and maple, of the chestnut, and birch. In some of the southern counties, almost the only trees are the shrub oak and yellow pine.

Mineralogy.] Great quantities of bog *iron* ore are found in the southern counties, and of mountain ore in the South mountain. There is a rich copper mine in Bergen county near Newark bay, between the Hackinsac and Passaic. It was discovered in 1719. The ore yields 75 per cent of pure copper. Each hundred weight also yields from 4 to 7 ounces of *silver*, and a small quantity of *gold*. There is another mine at New-Brunswick, and others at Rocky hill, Boundbrook, Pluckemin, and Woodbridge. Two lumps of pure copper was found at Boundbrook in 1754, which weighed 19cwt. A *lead* mine has been discovered at Hopewell, 4 miles from Trenton. *Coal* is found on the Raritan, below New-Brunswick, and at Pluckemin. A quarry of *plaster of Paris* has been discovered in the county of Sussex. There is a *slate* quarry in Hunterdon county, 75 miles above Philadelphia, within 300 yards of Delaware. In Newark and Acquackinunk, there are immense quarries of free stone, of an excellent quality for building. The whole number of quarries of this kind, in the county is 19; and the value of the stone, annually sold, is estimated at \$36,000.

Mineral Waters.] In the upper part of the county of Morris, is a cold mineral spring, which is frequented by valetudinarians, and its waters have been used with very considerable success. In the county of Hunterdon, near the top of Musconetcong mountain, is a noted medicinal spring, to which invalids resort from every quarter. It issues from the side of a mountain, and is conveyed into an artificial reservoir for the accommodation of those who wish to bathe in, as well as to drink, the waters. It is a strong chalybeate and very cold. These waters have been used with very considerable success; but perhaps the exercise necessary to get to them, and the purity of the air in this lofty situation, aided by a lively imagination, have as great efficacy in curing the patient as the waters.

A curious spring has been discovered, about 200 yards from the south branch of Raritan river, from which, even in the driest seasons, a small stream issues, except when the wind continues to blow from the north-west for more than two days successively, when it ceases to run; and if the water be taken out of the cask placed in the ground, it will remain empty, until the wind changes, when it is again filled and flows as usual.

Curiosities.] In the township of Shrewsbury, in Monmouth county, on the side of a branch of Neversink river, is a remarkable cave, in which there are three rooms. The cave is about 30 feet long, and 15 feet broad. Each of the rooms is arched; the centre of the arch is about five feet from the bottom of the cave; the sides not more than two and a half. The mouth of the cave is small; the bottom is a loose sand; and the arch is formed in a soft rock, through the pores of which, the moisture is slowly exudated, and falls in drops on the sand below.

In the township of Hanover, in Morris county, on a ridge of hills, are a number of wells, which regularly ebb and flow about 6 feet, twice in every 24 hours. These wells are nearly 40 miles from the sea, in a straight line. In the county of Cape May, is a spring of fresh water, which boils up from the bottom of a salt water creek, which runs nearly dry at low tide; but at flood tide, is covered with water directly from the ocean, to the depth of three or four feet; yet in this situation, by letting down a bottle well corked, through the salt water into the spring, and immediately drawing the cork with a string prepared for that purpose, it may be drawn up full of fine, untainted, fresh water. There are springs of this kind in other parts of the state.

On Sandy Hook, about a mile from the light-house, is a monument, which was erected to the memory of the Hon. Hamilton D. Halliburton and 12 others, who were drowned on this coast, Dec. 31, 1783.

PENNSYLVANIA.

CHAPTER I.

HISTORICAL GEOGRAPHY.

EXTENT, BOUNDARIES, DIVISIONS, NAME, HISTORY, RELIGION, GOVERNMENT, LAWS, POPULATION, MILITIA, FORTS, INVENTIONS, BANKS, MANNERS AND CUSTOMS, LITERATURE, STATE OF MEDICAL SCIENCE, CITIES AND TOWNS, ROADS, BRIDGES, CANALS, MANUFACTURES, COMMERCE.

Extent.] THE shape of Pennsylvania is more regular than that of any state in the union, except Connecticut. Its northern and southern lines are chiefly in two parallels, and its western is a meridian line. The greatest length is 307 miles from E. to W. The greatest breadth is 180, and the common breadth between the two parallels 160. It lies between lat. 39 42 and 42 17 N. and between lon. 74 32 and 80 27 W. The state contains about 46,800 square miles.

Boundaries.] Bounded on the N. by lake Erie and New-York; on the E. by a small part of New-York, and Delaware river, which separates it from New-York and New-Jersey; on the S. by the states of Delaware, Maryland, and Virginia; and on the W. by Virginia and Ohio. On the western line Ohio extends 90 miles, and Virginia 68; on the southern, Virginia 54, and Maryland 196 miles.

Divisions.] This state is divided into 43 counties and 644 towns as follow :

Counties.	No. towns.	No. inh. in 1800.	No. inh. in 1810.	Chief towns.
City and county of Philadelphia }	18	81,009	111,200	Philadelphia
Montgomery	30	24,150	29,703	Norristown
Bucks	32	27,496	32,371	Newtown
Delaware	21	12,809	14,734	Chester
Chester	40	32,093	39,526	West-Chester
Lancaster	25	43,403	53,927	Lancaster
Berks	38	32,407	43,156	Reading
Northampton	35	30,062	38,145	Easton
Luzerne	29	12,839	18,109	Wilkesbarre
Dauphin	15	22,220	32,883	Harrisburg
Northumberland	26	27,797	36,327	Sunbury
Wayne	12	2,562	4,125	Bethany
Adams	18	13,172	15,152	Gettysburg
Allegany	16	15,087	25,317	Pittsburg
Armstrong	7	2,399	6,143	Kitaning
Beaver	12	5,776	12,168	Beaverton
Bedford	15	12,039	15,746	Bedford
Butler	13	3,916	7,346	Butler
Crawford	14	2,346	6,178	Meadville
Cumberland	18	25,386	26,757	Carlisle
Fayette	19	20,159	24,714	Union
Franklin	14	19,638	23,083	Chamberston
Green	10	8,605	12,544	Waynesborough
Huntingdon	18	13,008	14,778	Huntingdon
Lycoming	18	5,414	11,006	Williamsport
Mercer	16	3,220	8,277	Mercer
Mifflin and Center	20	13,609	22,813	{ Lewisburg and Bellefont
Somerset	15	10,188	11,284	Somerset
Venango	8	1,130	3,060	Franklin
Warren	2	233	827	Warren
Washington	23	28,298	36,289	Washington
Westmoreland	14	22,726	26,392	Greensburg
York	22	25,643	31,958	York
Erie	6	1,468	3,758	Erie
Cambria	3		2,117	Ebensburgh
Indiana	7		6,214	Indiana
Clearfield	1		875	Clearfield
Jefferson	1		161	Jefferson
Tioga	2		1,687	Wellsborough
Potter	1		29	Potter
M'Kean	1		142	Smithport
Total	644	602,545	810,091	

Counties formed since 1810.

Bradford	Chief town	Meansville
Columbia		Danville
Lebanon		Lebanon
Lehigh		Northampton
Pike		Milford
Schuylkill		Orwigsburg
Susquehanna		Montrose
Union		New-Bethin

Total counties 50

Townships 651.

Name.] The name of this state is merely that of the original proprietor, Penn, and a common termination, derived from *sylva*, a wood or forest, annexed. It was given to the territory in 1681.

History.] In consequence of the recommendation of Gustavus Adolphus, a colony of Swedes and Finns, in 1627, came over to America. They landed at cape Henlopen, and bought the lands of the natives from that cape to the falls of the Delaware, which they called *New-Swedeland Stream*. Of these lands they accordingly took possession. In 1630, they built a fort at Lewistown, near cape Henlopen; and, the next year, another at Christiana. They formed various settlements along the west bank of the Delaware, as high as Trenton, and in the interior towards the Susquehannah; and instituted a regular government, founded on wise and correct principles. It was earnestly enjoined, to make fair purchases from the Indians, as the rightful owners of the land, and to treat them with kindness; to support religion and good manners: to explore and cultivate valuable materials for agriculture, manufactures, and commerce. A few bad characters came out with the first emigrants; but, by a subsequent edict, persons of that description were strictly restrained. The small colony were in a thriving state until the dispute with the Dutch, who were already established in New-York, and set up a prior claim to the Delaware. Unsupported by a distant mother country, then involved in war with five principal powers of Europe, it was conquered in the year 1654, and afterwards became, with the other Dutch possessions in North-America, part of the British dominions.

In March, 1681, Charles II. granted a charter to William Penn, the son of admiral sir William Penn, of the territory between Delaware river and bay, and lord Baltimore's province of Maryland. In July of the same year Penn disposed of 20,000 acres for 400*l*. to a company consisting chiefly of Friends, commonly called Quakers; a colony of whom came over towards the close of the year, and commenced a settlement above the confluence of the Schuylkill with the Delaware. Penn, the next year, published a frame of government, and a body of laws, agreed on between him and the purchasers; and obtained of the duke of York his deed of release for the territory, and two deeds conveying to him a tract of land at first called *The Territories of Pennsylvania*; afterwards *The Three Lower Counties on Delaware*. Penn himself arrived in October, and called an assembly of the province at Upland (Chester)

in December, by which the three lower counties were annexed to the province. He now purchased of the natives as much of the soil as the colony needed.

In 1683 he granted the freemen a new charter, and the assembly was first held at Philadelphia, which he had planned the preceding year. Ten years afterwards the king and queen assumed the government into their own hands, and appointed a common governor for this province and New-York.

In 1694 Penn was reinstated in the government, and he appointed a lieutenant governor of the province. Two years after, the assembly of the province prepared a new frame of government, which was approved of by the governor, who granted a new charter.

In 1700 the assembly surrendered this charter, and Penn the next year prepared his last charter, which was accepted by a majority of the assembly, but rejected by the representatives of the *Territories*; in consequence of which it was agreed (in 1703) that the representatives of the province and those of the territories should compose two distinct assemblies entirely independent of each other.

In 1742 the deputies of the Six Nations relinquished a very large tract on the Susquehannah to the state.

In 1758 gen. Forbes marched with a company from Philadelphia, and reduced fort Du Quesne, which was called Pittsburg.

In the early part of the revolution the legislature of this state offered the proprietors 130,000*l.* in lieu of all quit rents, which was accepted by them.

In Sept. 1777, this state was made the theatre of war. The battle of Brandywine was fought on the 11th of that month, in which the Americans were defeated; and Philadelphia was taken by sir William Howe on the 27th. The battle of Germantown, unfortunate to the Americans, was fought on the 4th of October. In November the British took fort Mifflin and Mercer. In June, 1778, the British evacuated Philadelphia and marched into New-Jersey. The Pennsylvania line, with part of the New-Jersey troops, in January, 1781, revolted, complaining of a want of pay and of suitable clothing; the complaints were redressed, and subordination was restored.

In 1793, and 1797, the city of Philadelphia was visited with the yellow fever. In the latter year 1276 persons died.

An insurrection took place, 1794, in the 4 western counties, to resist the laws of the union, laying a duty on distilled spirits. On the approach of a respectable force, in October, the insurgents laid down their arms, and were pardoned.

In 1799 the seat of the state government was removed from Philadelphia to Lancaster; and, in 1800, the seat of the federal government was removed from Philadelphia to Washington.

Religion.] In Pennsylvania, in 1816, there were reckoned 500 congregations of different denominations, viz. Presbyterians 86 congregations; German Calvinists 94; German Lutherans 74; Friends or Quakers 97; Episcopalians 26; Baptists 60; Roman Catholics 14; Scotch Presbyterians 8; Moravians 8; Free

Quakers 1; Universalists 1; Covenanters 2; Methodists a large number, besides 2 Jewish Synagogues. The present number probably exceeds 600. Until the revolution, Roman Catholics and Jews were excluded from a share in the government. The latter continued under this disadvantage, until the new constitution gave them, and all people of whatsoever nation or religion, unlimited liberty of conscience, with capacity for all civil rights and privileges.

Government.] The constitution of the state was established Sept. 2, 1790. It vests the legislative power in a senate and house of representatives. The number of senators cannot be less than one fourth, nor greater than one third, of the number of representatives. They hold their offices 4 years, and one fourth of them are elected each year. They are chosen by districts. The qualifications for the senate, are the age of 25 years, and 4 years residence immediately preceding the election. The number of representatives cannot be less than 60, nor more than 100. They are chosen annually by the city of Philadelphia, and the respective counties. The qualifications for a representative are the age of majority, and 1 year's residence immediately preceding the election. The legislature meet once a year in December. The executive power is vested in a governor, who must be 30 years of age, and have resided in the state the 7 years next before his election. He is elected for 3 years; but cannot be chosen above 9 out of any 12 years. He has the appointment of subordinate officers. If the governor return a bill presented for his approbation, two thirds of each house must concur to render it a law.

All persons have the right of voting, who pay taxes. The election takes place in October.

The judicial power is vested in a supreme court consisting of 4 judges, courts of oyer and terminer, courts of common pleas, orphan's courts, register's courts, courts of quarter sessions, and justices courts. The judges of the supreme court, and of the courts of common pleas, hold their office during good behaviour.

Laws.] Among other useful public laws of this state, are, one that declares all rivers and creeks to be highways—a law for the emancipation of negroes—a bankrupt law, nearly on the model of the bankrupt laws of England—a law commuting hard labor for a long term of years, for death, as a punishment of many crimes which are made capital by the laws of England. A law passed in 1819, vesting the estates of drunkards in the hands of trustees.*

* This admirable law provides, that the court of common pleas of any county, on complaint that any person residing in the county, by reason of habitual drunkenness, has become incapable of managing his or her estate, and is wasting or destroying it, shall appoint commissioners who shall proceed as in cases of persons represented *non compos mentis*, and in case it shall be found on the return of the commission and inquisition, that the complaint is well founded, the court are authorized to take charge of the person and estate of the drunkard, and he is rendered incapable of making any contract that shall bind his estate. The complaint may be made by any relation, by blood or marriage, of the drunkard, except the wife or child; and the persons appointed guardians must not be heirs or next of kin.—If such laws were enacted and executed in every state, they might do much towards effecting a cure of one of our greatest national evils.

Murder, arson, and one or two other crimes, are yet punished with death.

Population.] The number of taxable inhabitants in 1760, was 36,667 ; in 1770, 39,765 ; and, in 1793, 91,177. The whole number of inhabitants was in the year

1749 about 220,000		
1790 { 424,099 whites 3,737 slaves 6,537 free bl. }	434,373	
	1800 { 586,275 whites 1,706 slaves 14,564 free bl. }	602,545
	1810 { 786,804 whites 795 slaves 22,492 free bl. }	810,091

The following were the items of the census of 1810 :

	males.	females.	total.
Under 16 years of age	201,070	192,712	393,782
Between 16 and 45	148,396	146,786	295,182
45 and upwards	52,100	45,740	97,840
Total	401,566	385,238	786,804

Pennsylvania is entitled to 23 representatives to Congress.

Pennsylvania, at the first and second census, was, in point of total population, the second state; and, at the third census, the third state. At the fourth, it will undoubtedly be the second. Its white population at the third census was second only to that of New-York.

Militia.] In 1800, the militia of this state amounted to 93,221. In 1818, to 118,018.

Forts, &c.] On mud island is a citadel, and a fort not completed. Opposite Mud island, on a sand bar, a large pier has been erected, as the foundation for a battery, to make a cross fire. The garrison about to be erected by the United States, at Presque isle, will be upon a very commanding spot, just opposite the entrance of the bay. The town commences 30 yards west of the old British fort, leaving a vacancy of 600 yards, which will serve for a military and public walk, and add much to the beauty of the place. The town which is now building, will extend nearly three miles along the lake and one mile back.

New Inventions.] These have been numerous, ingenious, and useful. Among others are the following: A new model of the planetary worlds, by Mr. Rittenhouse, commonly, but improperly, called an orrery—a quadrant, by Mr. Godfrey, called by the plagiarist name of Hadley's quadrant. Messrs. Fitch and Rumsay contend for the honor of having the steam boat, which Fulton has since so greatly improved. Besides these there have been invented many manufacturing machines, for carding, spinning, winnowing, &c. which perform an immense deal of work with very little manual assistance. Dr. Franklin the great improver of electrical science, had great merit as a promoter of general useful knowledge.

Banks.] There are upwards of 50 banks in the state, 10 of which are in Philadelphia, 4 at Pittsburg, at Lancaster, Carlisle, Washing-

ton, Reading, and Easton, 2 in each; and the rest scattered in the principal towns over the state.

Manners and Customs.] About half of the inhabitants are of English and New-England origin, about a fourth German, and an eighth Irish. The rest are Scotch, Welch, Swedes, and Dutch. These various classes retain in a great degree, their own national character. The Germans, Dutch, and Catholic Irish retain their own languages, and many of them cannot speak English. The Swedes who have the character of "probity, mildness, and hospitality," have blended the English language with their own, and speak both imperfectly. The diversities of religion here are also very great. The inhabitants, who are of English and New-England origin, are mostly Friends, Episcopalians, and Presbyterians. They live principally in the city of Philadelphia, and in the counties of Chester, Philadelphia, Bucks, Montgomery, and Luzerne. The Irish, and descendants of Irish, are chiefly settled in the western and frontier counties; a large proportion of them are Presbyterians from the north of Ireland. There are likewise many Roman Catholics from this nation.

The Germans are most numerous in the north part of the city of Philadelphia, and in the counties of Philadelphia, Montgomery, Bucks, Dauphin, Lancaster, York, and Northampton; chiefly in the four last; but are spreading in other parts. They consist of Lutherans, (who are the most numerous sect among them) Calvinists or reformed church, Moravians, Catholics, Mennonists, Dutch Baptists (corruptly called Tunkers and Dunkers, by way of reproach) and Zwingelsters, who are a species of Quakers. These are all distinguished for their temperance, industry and economy. The Germans have usually about a fourth of the members in the assembly; and some of them have risen to the first honors in the state, and now fill a number of the higher offices. Pennsylvania is much obliged to the Germans for improvements in agriculture; but their imperfect knowledge of the English language makes them deficient in literature and political knowledge. They would derive advantage by studying the many excellent modern authors in their own language, with whom they are now unacquainted.

The Baptists (except the Mennonists and Dutch Baptists) are chiefly the descendants of emigrants from Wales, and are not numerous.

There is nothing in short to give the inhabitants a common character, but every thing to excite religious, political, and national jealousies. It is probably owing to this fact, and to the political importance given by the laws to emigrants of every description from Europe, that this state has been, since the revolution, more unquiet than any other in the union. It is owing to the same reasons probably that more than half of the Europeans, who emigrate to the United States, enter the Delaware. This state alone has permitted foreigners to hold lands without becoming citizens.

Literature.] Dickinson college* at Carlisle, was founded in 1783, and put under the care of 40 trustees. It had a principal who was

* Named after the Hon. John Dickinson, of Pennsylvania.

professor of logic, metaphysics, and moral philosophy, a professor of mathematics; of the learned languages; of modern languages; a lecturer on natural philosophy and chemistry, and a tutor; a philosophical apparatus, and library of about 3000 volumes; 10,000 acres of land, and \$10,666:67 in funded certificates. The number of students has been about 100; it now has none.

In Philadelphia is the University of Pennsylvania, formed by the union of two literary institutions, which had previously existed a considerable time in this city, one designated by the above name; the other by that of the college, academy, and charitable schools of Philadelphia. They now constitute one seminary, incorporated in 1791. The philosophical apparatus is very complete. The funds of the university produce annually a revenue of about 2365/. The aggregate number of students, in the several schools, is, on an average, about 510; and the number usually admitted to degrees in each year, about 25. The medical establishment connected with it is the most respectable in the union.*

In 1787, a college was founded at Lancaster, and named Franklin college, after Dr. Franklin. This college was for the Germans, for the purpose of educating their youth in their own language, and in conformity to their own habits. The English language, however, was taught in it. Its endowments are nearly the same as those of Dickinson college. Its trustees consist of Lutherans, Presbyterians, and Calvinists, German, and English; of each an equal number. The principal is a Lutheran, and the vice principal a Calvinist. This institution hitherto has been little better than nominal. Its collegiate edifice is occupied for schools.

At Washington, in the western part of the state, a college was established about 1802, with a fund of several thousand acres of land. It has a stone edifice of 3 stories. It has a president and 2 professors, with a library and philosophical apparatus, and about 100 students connected with it, either as undergraduates, or pursuing studies to fit them for college. Three years completes their collegiate course. It is a flourishing and useful institution.

At Cannonsburgh is Jefferson College, established in 1802, which has an edifice 3 stories high, a library of about 1000 volumes, a president, vice president, 2 professors, and about 90 students. They complete their collegiate course in 3 years.

Allegany college, at Meadville, was incorporated in 1817, two years after its origin. It has a library of about 1000 volumes; and funds to the amount of \$10,000; and 8 or 10 students. It has a board of 52 trustees, a president, and a professor of the German language.

The Episcopalians have an academy at Yorktown, in York county. There are also academies at Germantown, at Pittsburg, at Allentown, and other places; these are endowed by donations from the legislature, and by liberal contributions of individuals.

The schools for young men and women in Bethlehem, and Nazareth, under the direction of the people called Moravians, are among the best establishments of the kind in America. Besides these, there are numerous private schools in different parts of the

* See the following article.

state; and, to promote the education of poor children, the legislature has appropriated a large tract of land for the establishment of free schools. A bill for establishing schools throughout the state, was passed February 1796. Much however, remains to be done on this subject.

State of Medical Science.] The rise, progress, and present state of medical knowledge in Pennsylvania, furnish a standard of comparison in medical enterprise in reference to her sister states, which may justly yield her high satisfaction from the conscious superiority of her own institutions. In 1764, Dr. Shippen commenced a course of lectures on anatomy and surgery, which were the first lectures on those subjects ever given in this western hemisphere. Ten pupils comprised his whole audience during his first course of lectures. In 1807 the same professor gave lectures to three hundred and fifty. At this time he experienced the satisfaction of having his own pupils in all the other branches of medicine, as his coadjutors and fellow professors. The course of 1810, and 1811, was attended by a class comprising somewhat more than five hundred. The medical institution is now divided into six professorships, which with the names of the professors follow, viz. on the theory and practice of physic and clinical medicine, by Benjamin Rush, M. D.; on anatomy, by Caspar Wistar, M. D.; on materia medica, botany and natural history, by Benjamin Smith Barton, M. D.; on surgery, by Philip Syng Physic, M. D.; John Syng Dorsey, M. D. adjunct professor; on chemistry, by John Redman Cox, M. D.; on midwifery, by Dr. James. This school, already a rival to the medical school at Edinburgh, must furnish even greater advantages to the American student in medicine, inasmuch as a familiar acquaintance with the character of the diseases arising from soil, climate, and state of society in the district destined to become his sphere of action, must very considerably extend his usefulness. The lectures annually commence the first Monday in November and terminate the first of March, following. Connected with the medical school is a large hospital, which has a well furnished medical library and anatomical museum. Free access to all these advantages is enjoyed by the students on paying ten dollars to the use of the establishment.*

Cities and Towns.] PHILADELPHIA, the Indian Coaquannoc, and, after New-York, the most populous city of the union, was planned and founded by William Penn, in 1682; and, in less than a year, contained 80 houses and cottages. It was incorporated by Penn immediately before his return to England in 1701. The ground plot of the city, as originally laid out, was a parallelogram of 2 miles E. and W. by 1 N. and S. in the narrowest part of the isthmus between the Schuylkill and the Delaware, and 5 miles above their confluence. It is generally elevated 40 feet above the rivers. At present the city extends E. and W. 2 miles between the two rivers, and N. and S. 1 mile on the Schuylkill, and 3 on the Delaware. The streets cross each other at right angles. Nine, of two miles in length, run from river to river, and 23 of 1 mile or upwards, run N. and S. Beside these, there are many shorter streets dividing the

* For the preceding article the author is indebted to Dr. Shattuck of Boston.

original squares. Two main streets of 100 feet wide, cross each other in the centre, and form a public square. None of the original streets are less than 50 feet wide. They are kept uncommonly clean, and are paved with pebbles; and the foot walks, on each side, of brick, are broad, and raised one foot above the carriage way. They are handsomely lighted at night. The houses are principally of brick, three stories high, and built in a plain, neat style, without much display of ornament. Those in Sansom street are uniform; as are most of those in Walnut and Second streets. The number of houses in 1769, was 4,474. The population in 1790, was, 28,522, in 1800, 41,220, and in 1810, 53,722; exclusive of the suburbs. Including the suburbs, in 1810, there were 92,247 inhabitants in Philadelphia, and the estimate now (1819) is 130,000. The city and suburbs contain 50 churches. The most numerous denominations are Presbyterians, Friends, Episcopalians, Baptists, Methodists, and Catholics. The first Presbyterian, and the German Lutheran, are among the handsomest of these buildings. The other edifices are a statehouse,* built in 1753, admired for its architecture, with a garden occupying a whole square; a town hall with a front of 200 feet, a library, a jail, a hollow square, 100 feet in front, and unusually strong; a market in High street, reaching from Front to Fourth streets, and supported by 300 pillars; the Pennsylvania bank, in Second street, a most beautiful marble edifice of the Ionic order, after the model of the temple of Minerva; a new theatre in Chestnut street; and the university building, formerly a house for the president of the United States. Two steam engine houses have been erected for supplying the city with wholesome water from the Schuylkill. One of these is a handsome building of white marble, the base of which is square and the superstructure circular. It stands in the centre of High and Broad streets, exactly upon the point of intersection, and is surrounded by a large circular enclosure, which is planted with trees. This building commands a view of High street in its whole extent, from river to river, and is itself a handsome object, as seen from various parts of the city. In this marble rotunda, the water is raised 30 or 40 feet above the highest ground in the city. A permanent bridge over the Schuylkill, opposite to Market street, consists of 3 arches, resting on stone piers, and is one of the most superb structures of the kind in America.

The trade of the city is very extensive. It has 10 banks. It imports foreign goods for the greater part of the state, for half of New-Jersey, and for Delaware; and is now contending with New-York, New-Orleans, and Montreal, for the commerce of the western part of New-York, and of the western states. The Delaware is navigable, as far as Philadelphia, for ships of any size, and for sloops to Trenton. The Schuylkill is navigable, for large ships, as high as the town. Almost all the exports from Pennsylvania, except what go down the Ohio, and to Baltimore, are shipped from this city.

* In the statehouse, Mr. Peal keeps his museum, by special permission of the legislature. It is the largest collection of natural curiosities in America. In it are 400 species of birds, some living animals, &c.

The aggregate tonnage for the year 1805, was 88,239 tons; 1810, 121,443. The Philadelphia library contains more than 20,000 volumes; most of them well selected, and accessible to all persons. The chief literary and humane societies are the American philosophical society; the college of physicians; the society for promoting political inquiries; the Pennsylvania hospital; the Philadelphia dispensary; the Pennsylvania society for the abolition of slavery; the society for alleviating the miseries of prisons; the Pennsylvania society for the encouragement of manufactures and useful arts; the Philadelphia society for the information and assistance of immigrants, and two other societies of the same kind; one for the relief of German, and another for the relief of Irish immigrants; and a humane, an agricultural, marine, and various other charitable societies. Few cities in the world, of the same population and riches as Philadelphia, are better provided with useful institutions, both public and private. There are also many good academies for the instruction of both sexes. Almost every religious society has one or more schools under its immediate direction, where children belonging to the society are taught to read and write, and are furnished with books and stationary articles.

This city is governed by a mayor, recorder, 15 aldermen, and 30 common council men; according to its present charter, granted in the year 1789. The mayor, recorder, 8 aldermen, and 16 common council men, make a quorum to transact business; they have full power to constitute and ordain laws and ordinances for the governing of the city; the mayor, recorder, and aldermen, are justices of the peace, and justices of oyer and terminer. They hold a court four times a year, to take cognizance of all crimes and misdemeanors committed within the city; two aldermen, appointed by the mayor and recorder, hold a court on the forenoon of Monday and Thursday of every week, to judge of all matters which are cognizable before a justice of the peace.

The city is increasing very rapidly. In 1802, there were built in this city 464 houses, in 1803, 385, in 1804, 273 houses, and it has continued to increase at this rate. The environs of this city, are very pleasant, and finely cultivated. Philadelphia lies in lat. 39 56 54 N. lon. 75 8 45 W. from London. It is 110 miles from the ocean, by the river and bay, 60 in a S. E. direction. It is 299 miles S. W. of Boston, 90 S. W. from New-York, 137 N. E. of Washington.

LANCASTER is one of the largest inland towns in the United States, miles N. W. of Philadelphia. It is built on a side hill, a mile and a 58 half W. of Conestoga creek; which falls into the Susquehannah, 9 miles S. by W. from the town. The public building are a handsome statehouse and market-house of brick, a strong stone jail, and 9 churches for Presbyterians, Episcopalians, German Lutherans, German Calvinists, Moravians, Methodists, Friends, and Catholics. The population in 1800, was 4,292, and in 1810, 5,405. This town is the seat of extensive manufactures, and trade, being surrounded by a rich country.

PITTSBURG city is situated on the broad, triangular point of flat land, which spreads, with richness and beauty between the Alle-

gany and Monongahela rivers, at their junction. These two rivers form the Ohio; by the former of which Pittsburg has a water communication with the great chain of northern lakes, except a turnpiked portage of 14 miles; also with the western parts of the state of New-York; and by the latter with the Potomac, and the city of Washington. It is at the head of the Ohio, by which, and the waters connected with it, it has easy intercourse with the whole of the western country. In 1755, this place bore the name of *Fort du Quesne*. In 1760, the town commenced; was laid out on its present plan in 1765; purchased of the Indians in 1768; and established with the privileges of a town in 1785, when it contained 1,303 inhabitants. Next to Philadelphia, it is now the largest city in Pennsylvania, and was the first incorporated, by any of the U. States governments, on the western waters. "Within 40 years the solitude of the Ohio was only disturbed by the lazy paddle of the Indian canoe, as the savage slowly floated on its bosom; now, the same banks are embellished by taste, and the canoe of the naked Indian gives way to the majestic steam boat, crowded with travellers, and loaded with merchandize from all quarters of the globe." The streets cross each other at right angles, as in Philadelphia. The whole plain is already covered with buildings, and the suburbs in various directions are fast increasing. It is the centre of a great and rapidly increasing commerce, and the avenue through which passes the immense concourse of emigrants from the East to the West. Through the turnpike gate nearest this city, there passed in a single year 11,800 waggons. It is a remarkable fact, that besides vast quantities of iron ore found in this neighborhood, 8 or 9 counties, which surround and include Pittsburg, are ascertained to be on one extended bed of fossil coal. The hills and banks of the rivers in sight of the city, are full of this mineral. It is hence fitted for all kinds of manufactural establishments, which require the use of fuel; and they can be supported and carried to any extent that may be necessary; and a population maintained equal to their management. Not only the great rivers meet here, but the great roads finely turnpiked, from Washington, Baltimore, Philadelphia, and the great lakes, converge and centre here. There are very few places in our country, which bid fairer for a rapid and extensive growth than this city. In size, of places N. of the Allegany, it is next to New-Orleans.

Two stupendous and elegant bridges, one over the Monongahela, the other over the Allegany river, within 400 yards of each other, have lately been erected, in sight of Pittsburg. There were here, in 1818, 8 houses for public worship, 4 banks, a courthouse, prison, and a national armory and magazine. Almost all sorts of manufactures have been established here, some in infancy, others in a more advanced state, all promising, carried on by ingenious mechanics, both Americans and foreigners. From its advantages, it is thought, that in a few years this place will rival Manchester in cotton goods, Birmingham in iron wares, Russia in hempen productions, and Germany in her glass wares.

The first steam boat on the Ohio, was launched 1816. There were, two years after, upwards of 30 in operation ; and in two years more there will probably be three times this number. The navigation of the Ohio, in a dry season, is difficult, down to Mingotown, 75 miles below the city ; in common seasons, and always in the spring, there is sufficient water for vessels of 150 to 300 tons. In 1810, this city had 4,768 inhabitants. Now (1819) it has at least three times this number. It is the capital of Allegany country, in lat. 40°, 31' 44" N. lon. 80°, 8' W. 300 miles N. by W. of Philadelphia, 232 from Washington, 231 from Baltimore, 2100, by water, from New-Orleans.

CARLISLE, 120 miles W. by N. from Philadelphia, 100 from Washington, is built on a pleasant plain, near the southern bank of Conedogwinet creek. The streets cross each other at right angles. The public buildings are a court house, jail, the college edifice, 7 houses of worship, and 4 banks. Population in 1800, 2032 ; in 1810, 2491.

HARRISBURGH, originally Louisburgh, is the seat of the state government, pleasantly situated on the N. E. side of the Susquehannah river. The houses, chiefly of brick, are built handsomely on a regular plan, and make a good appearance. Here are a court house, and jail, and 3 houses of worship. The state house is on a commanding elevation, a little distance from the bank of the river, yet (1819) unfinished. A covered bridge across the Susquehannah, opposite the town, adds to its beauty, as well as convenience. Great quantities of lumber centre here, and go down the river to a market ; and here are also considerable manufactures. This town is 107 miles W. of Philadelphia, lat 40° 16' N. It had in 1810, 2,287 inhabitants.

Bethlehem is 53, and Nazereth 63 miles, N. of Philadelphia. These are the two principal settlements of the Moravians, and here their far famed and highly respectable and useful schools, for both sexes, are established. The other considerable towns in this state, are Yorktown, Washington, Reading, Newton, and Sunbury.

Roads.] Many of the turnpikes, leading from Philadelphia in various directions, are of the most substantial kind. The road from Philadelphia to Trenton, 28 miles, is of this description. The road through Germantown to Perkiomen, 25 miles ; with branches to Willow grove, 10 miles, and to Chesnut hill, 7½ miles, is 50 feet broad ; 28 of which, having a convexity of 15 inches, are covered with a stratum, either of gravel 18 inches thick, or of pounded stones 12 inches thick. The expense, beside that of the branches, was, \$285,000, the nett income is \$9000. The road to Lancaster, 62 miles, cost \$465,000 ; and the nett income is \$12,000. It is 24 feet wide, beside the side walks, and is covered with 18 inches of pounded stone. There is a branch from this road, from Lancaster N. W. to Harrisburgh, 35 miles. The main road, also, in 1808, was carried 10 miles farther W. to Columbia, and has since been extended to Pittsburg. There is a turnpike from Northumberland to Erie ; also, from Philadelphia through Ephrata to Harrisburgh ; and another of 100 miles, from Lausanne, on the Lehigh, to Newtown, in New-York on the Tyoga.

Bridges.] The bridge across the Schuylkill is 750 feet long and 42 wide. It rests on only two piers and the abutments. The piers are 195 feet apart, and are of the most solid workmanship. The expense was \$300,000. Bridges over the Susquehanna, at Columbia, Harrisburgh, and at Northumberland, have been built; also, over the Alleghany and Monongahela, at Pittsburg.

Canals.] It has long been an object of contemplation to establish a water communication between lake Erie and Philadelphia. The country was surveyed in 1790, by public commissioners, who proposed the following route, the whole distance of which is 561 miles. Up the Schuylkill to Reading; thence to the head waters of the Tulpehocken, which were to be connected by a canal with those of the Quittapahilla, a branch of the Swetara, and down this last to the Susquehanna; thence up the Susquehanna, the Juniata, and the Frankstown branch, to Frank's Old town; thence by a canal to Poplar Run, and by a portage of 18 miles across the mountains to the Little Conemaugh, and down that river and the Kiskemanitis to the Alleghany; thence up the Alleghany and French creek to Le Boeuf; and thence by a portage of 15 miles to the lake.

Attempts have been made to complete the two first stages since 1791; but hitherto, owing to the want of funds, they have not been completed.

At the Conewago falls in the Susquehanna, in the gap of the Blue Ridge, the descent of which is 19 feet, a canal has been completed, 1 mile in length. A bold projector has proposed to open a canal, over, or through, the Alleghany mountains, to connect the waters of the Alleghany and Delaware rivers, after the manner of some of the European canals.

Manufactures.] The manufactures of this state exceed in amount of value by about one quarter, those of the state of New-York, are more than a third greater than those of Massachusetts. These three are by far the largest manufacturing states in the Union. The value of the manufactures of this state, according to the returns of the Marshal in 1810, was \$33,691,111. There has been a great increase since. The manufactures have been of all the various kinds already enumerated, (p. 233.)

Commerce.] The value of the exports from this state was, in 1799, \$12,431,967; in 1810, \$10,993,398; and in 1817, \$8,933,930. The trade with the eastern and southern states is chiefly by barter. Wheat, flour, and bar iron are exported to Maine, New-Hampshire, and Massachusetts for whale oil, whale bone, spermaceti, seal skins, mackerel, cod fish, and salmon; to Rhode Island and Connecticut for cheese; to North-Carolina for tar, pitch, turpentine, and lumber; and to South-Carolina and Georgia for live oak, cedar, cotton, and rice. Virginia sends wheat and tobacco to be manufactured; also coal, lead, and peach brandy; and receives for them foreign merchandise. Hats, saddlery, shoes, chairs, carriages, hewn stones, cast iron utensils, wheel tire, spades, hoes, axes, tin ware, paper, books, and brushes are exported to a very large amount to all the southern states; and in return large quantities of the skins of deer, otters, beavers, racoons, foxes, and muskrats are imported from

their back country. The eastern shore of Maryland sends wheat and maize; the western kite foot tobacco. Delaware sends large quantities of wheat flour for exportation. New-Jersey chiefly supplies the market of Philadelphia, and furnishes rye meal, maize, lumber, and bar iron. The trade with New-York depends on the fluctuation of the market.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE, FACE OF THE COUNTRY, SOIL AND AGRICULTURE, RIVERS, SWAMPS, MOUNTAINS, BOTANY, ZOOLOGY, MINERALOGY, MINERAL WATERS, CURIOSITIES.

Climate.] THE climate of Pennsylvania is perceptibly more temperate than that of the New-England states. The winters are never so severe, and the summers are generally warmer. Snow lies on the ground but a short period in the winter, and sleighs are but little used. This is, however, generally a healthy country, and has but few peculiar diseases. In the western country, particularly in the neighborhood of Pittsburg, *goiteers* are common. The fever and ague and bilious fevers are also frequent in summer.

Face of the Country.] The counties of Bedford, Huntingdon, Mifflin, Cumberland, Franklin, Dauphin, and part of Northumberland, Berks, and Northampton, are mountainous; the mountains stretching in a N. E. and S. W. direction a little E. of the centre of the state. The rest of the country is generally level, or no more than what may be called uneven. The streams in this state have a great number of falls, suitable for every kind of mill works, and labor saving machines.

Soil and Agriculture.] A great proportion of the state is good land; and no inconsiderable part excellent. The two richest tracts are, one on the south line, comprising York and Lancaster counties, and the valley of Franklin and Cumberland; and the other in the N. W. including the land between lake Erie and the sources of the eastern branches of the Allegany. Generally the soil is more fit for grain than grass. The borders of the streams and rivulets are good natural meadows; but the turf of other unimproved lands is greatly inferior in the quantity and quality of its grass to that of the eastern states. This is a serious inconvenience, and renders it necessary for the farmers to cultivate large quantities of clover and other artificial grasses. Wheat is the grain of far the most general cultivation. It flourishes admirably, and fears no enemy here but the Hessian fly, whose ravages, however, are not so fatal as in New-England. Maize is the grain of the next importance. Buck wheat yields a very considerable crop throughout the country. Rye, within the last ten years, has been very generally cultivated for the distilleries. The crop of barley is constantly increasing with the number of the breweries. That of oats is sufficient for

the demand. The Germans cultivate spelts for their horses. Henip is now raised extensively in the western part of the state, and the crop is very rapidly increasing. Flax has a portion of ground on almost every farm. Potatoes yield a great crop; the Bermudian potatoe flourishes in a loose mould; turnips, parsnips, cabbages, carrots, peas, &c. are extensively raised in gardens and in the field. The horses of Pennsylvania are, as a breed, very large and strong; but the farmers substitute them too generally for oxen. Mules and asses are rare. The number of sheep is considerable and rapidly increasing. That of hogs exceeds the home consumption. They are fed in the woods most of the year, and their pork is very fine. In the southern, old settled counties, orchards are very abundant, and they are planting extensively in the new. Peaches are said not to flourish so well as formerly. Cherries and plums are plenty. Wine is made to some extent of the wild grape, and a large quantity of maple sugar is annually manufactured by the farmers.

Rivers.] The Delaware is the eastern boundary. The Susquehannah and the Allegany run the greater part of their course in this state; the Ohio about 60 miles; the Monongahela partly in Virginia; the Tioga chiefly in New-York, and about 3 miles in Pennsylvania. All these have been described.

The Schuylkill, a branch of the Delaware, rises N. W. of the Kittatinny mountains, through which it breaks into a fine champagne country; and, taking a S. E. direction, nearly parallel with both the Delaware and the Susquehannah, empties opposite Mud island, 5 miles in a straight line, and 7 by the winding of the river, below Philadelphia. Its whole length is about 120 miles. It is far from being navigable in its natural state, and the artificial attempts to render it so, have not hitherto been very successful.

The Lehigh rises near Wilksbarre, and, taking a circuitous route, passes through the Blue mountain, and makes its way to the Delaware, at Easton, 75 miles from its source; of which distance it is navigable, for boats, 30 miles.

The Swetara and Conestoga both run S. W. about 40 or 45 miles, and fall into the E. side of the Susquehannah. The former is boatable 15 miles.

The Juniata rises in the Allegany ridge. It runs first S. E. and afterwards nearly N. till near Huntingdon, it receives the Little Juniata from the N. W. Thence it winds through the various ranges of mountains, and, at length, empties into the Susquehannah about 15 miles above Harrisburgh. Its whole length is about 180 miles.

The western branch of the Susquehannah heads near the sources of the Connemagh, a branch of the Allegany, and is the only river that breaks through all the mountains. Running N. E. about 90 miles, it receives the Sinemahoning from the N. W. one of whose branches has its rise near the sources of Toby creek, the other near those of the Allegany. After an eastern course of about 50 miles, it receives Pine creek, from the N. which heads near the Allegany, and runs upwards of 80 miles. Thus enlarged, it proceeds E. and

S. about 70 miles, falling into the Susquehannah at Northumberland, like the Juniata it flows chiefly through a mountainous, country, and is a rapid violent stream. The other branches of the Susquehannah are the Conodogwinet and the Conewago.

The chief branches of the Allegany are French creek, which heads near lake Erie, and empties at Franklin. Toby's creek, which runs W. S. W. about 70 miles, and is boatable nearly to its source, where there is a short portage to the Sinemahoning; Sandy lick, a little below; and the Kiskemanitas, whose most distant source, Stoney creek, heads in the Allegany ridge near the waters of the Yohiogany, and running N. receives the Little Connemagh. The united stream takes the name of the Connemagh, and passing westward through the mountains receives Black lick from the N. E. and afterwards the Loyalhannon from the S. E. Hence for 25 miles, it is called the Kiskemanitis. Its whole course is about 90 or 100 miles; and it falls into the Allegany 23 miles above Pittsburg. Big Beaver creek heads in the N. W. part of the state near the Coneaut, a river of lake Erie. It runs a little E. of S. and falls into the Ohio at Beavertown, 28 miles below Pittsburg, after a course of more than 100 miles.

The several branches of the Yohiogany river rise on the west side of the Allegany mountains. After running a short distance, they unite and form a large beautiful river, which, in passing some of the most western ridges of the mountains, precipitates itself over a level ledge of rocks, lying nearly at right angles to the course of the river. These falls, called the Ohiopyle falls, are about twenty feet in perpendicular height, and the river is perhaps eighty yards wide. For a considerable distance below the falls, the water is very rapid, and boils and foams vehemently, occasioning a considerable mist to rise from it, even at noon day, and in fair weather. The river at this place runs to the southwest, but presently winds round to the northwest, and, continuing this course for 30 or 40 miles, it loses its name by uniting with the Monongahela, which comes from the southward, and contains, perhaps, twice as much water. These united streams, shortly after their junction, mingle with the waters of the Allegany at Pittsburg, and together form the grand river Ohio.

Swamps.] Great swamp lies between Northampton and Luzerne counties; and Buffalo swamp near the source of the west branch of the Susquehannah. These swamps are covered with beech and maple, and make good farm land.

Mountains.] The mountains of Pennsylvania all belong to the great Allegany range. The principal ridges in this range, in Pennsylvania, are the Kittatinny, or Blue mountains, which pass north of Nazareth in Northampton county, and pursue a southwest course, across the Lehigh, through Dauphin county, just above Harrisburgh, thence on the west side of the Susquehannah, through Cumberland and Franklin counties. Back of these, and nearly parallel with them, are Peters, Tuscarora, and Nescospek mountains, on the east of the Susquehannah; and on the west, Sharemon's hills, Sideling hills, Ragged, Great Warrior Evits, and

Will's mountains ; then the great Allegany ridge, which being the largest, gives its name to the whole range ; west of this, are the Chesnut ridges. Between the Juniata and the west branch of the Susquehannah are Jacks, Tussys, Nittiny, and Bald Eagle mountains.

Botany.] The various species of oak, form the bulk of the forests. Those of the walnut are far more frequent than in the eastern states. The sassafras, mulberry, and tuliptree, are common, and have their full size. The elm and the linden, or lime tree, are not so stately as farther north. The sugar maple is abundant beyond the mountains. The white pine and white cedar are found occasionally. Red cedars are not unfrequent on the high grounds. The *magnolia glauca* is found in the low grounds ; and the *magnolia acuminata* grows very tall on the western mountains. Various species of wild grape are common in the forests.

The wild animals and wild fowls of various kinds common to this climate, which formerly abounded in this state, are diminishing, of course, as the country settles. They are still found in numbers however, in those parts of the state, which are mountainous, and which lie in forest.

Mineralogy.] Iron ore is distributed in considerable quantities through the state. A valuable lead mine has been discovered on Perkiomen creek, near the Schuylkill. It is said to be extensive, and advantageously situated. The ore yields 70 per cent of pure lead, and a considerable quantity of silver. Copper has also been found. Various quarries of marble have been opened, and limestone is common. Millstones of a coarse grain, are hewn in Bucks county. Coal is found in great abundance on the Susquehannah ; particularly near Wyoming. At the head of the western branch, is an extensive bed, which stretches over the country southwardly, is found in the greatest plenty about Pittsburg.* It is also found near the sources of the Lehigh and the Schuylkill.

Mineral Waters.] Oil creek, in Allegany county, 100 miles above Pittsburg, issues from a remarkable spring, which boils like the waters of Hell Gate, near New-York. On the top of the water floats an oil similar to that called Barbadoes tar. Several gallons may be gathered in a day. It is found very serviceable in the rheumatism, in restoring weakness in the stomach, and in curing bruises and sore breasts. When drank, the water of the spring operates as a gentle cathartic. It is gathered by the country people, and Indians, boiled and brought to market in bottles, and is deemed a most valuable family medicine.

Curiosities.] About 10 miles W. of Reading, on the Harrisburg road, there is a spring 15 feet deep, and 30 in diameter, from which issues a large mill stream. It is supposed to be the outlet of a river, which about 2 miles above sinks into the earth ; and is con-

* See the account of this town.

veyed in a subterranean channel to this orifice. The water is clean and abounds with trout.

There is a remarkable grotto or cave on the east bank of Swetara river, about 2 miles above its confluence with the Susquehannah. Its aperture under a pretty high bank. is from 15 to 20 feet wide, and from 7 to 10 in height. You go down by a gradual descent, so low that the surface of the river is rather higher than the bottom of the cave, and in your progress pass through a number of passages and apartments of various dimensions some low and narrow, others very high and spacious, vaulted by magnificent canopies, fretted with a variety of depending petrifications, some of which by means of the constant accretion of petrifying matter, are formed into pillars. These appear as supports of the roof, which is of solid limestone, perhaps 20 feet thick. Thirty years ago there were ten such pillars, each six inches in diameter, and six feet high; all so ranged that the place they enclosed resembled a sanctuary in the Roman church. No royal throne ever exhibited more grandeur than this *lusus naturæ*. The resemblance of several monuments are found indented in the walls on the sides of the cave, which appear like the tombs of departed heroes. Suspended from the roof is "the bell," (which is nothing more than a stone projected in an unusual form) so called from the sound it occasions when struck, which is similar to that of a bell. Some of the stalactites are of the color of candy, and others resemble loaf sugar; but their beauty is much defaced by the smoke of the torches, which are frequently employed in conducting the curious traveller through this gloomy recess. The water which exudes through the roof, runs down the declivity, and is both pleasant and wholesome to drink. There are several holes in the bottom of the cave descending perpendicularly, perhaps, into an abyss below, which renders it dangerous to walk without a light. At the end of the cave is a pretty brook, which, after a short course, loses itself among the rocks. Beyond this brook is an outlet from the cave by a very narrow aperture. Through this the vapours continually pass outwards with a very strong current of air, and ascend, resembling, at night, the smoke of a furnace.

DELAWARE.

CHAPTER I.

HISTORICAL GEOGRAPHY.

EXTENT, BOUNDARIES, DIVISIONS, NAMES, HISTORY, RELIGION, GOVERNMENT, POPULATION, MILITIA, LITERATURE, TOWNS, CANAL, MANUFACTURES, COMMERCE.

Extent.] DELAWARE is 96 miles long from N. to S. Its greatest breadth is 36 miles, and its least 10. The area is about 2120 square miles. It lies between lat. 38 29.30, and 39 54 N. and between lon 74 56. and 75 40 W.

Boundaries.] Bounded N. by Pennsylvania; E. by Delaware river and bay, and the Atlantic; S and W. by Maryland.

Divisions.] This state is divided into 3 counties and 25 townships.

Counties.	No. of towns.	Population.			Chief towns.
		1790.	1800.	1810.	
Newcastle	9	19,686	25,361	24,429	{ Wilmington Newcastle
Kent	5	18,920	19,554	20,495	
Sussex	11	20,488	19,358	27,750	Dover
					Georgetown
	25	59,094	64,273	72,674	

It is entitled to 2 representatives to Congress.

Names.] This country, when ceded by the duke of York and Albany to William Penn. was called *The Territories of Pennsylvania*. When it obtained its own assembly (in 1703) it was called *The Three Lower Counties on Delaware*; a name, which it retained, till the formation of a constitution, in Sept. 1776, when it took that of *Delaware*. This name was derived directly from the bay, but, originally, from lord De la War, who completed the settlement of Virginia, and died in this bay, in 1618, on his way to Virginia.

History.] A colony of Swedes and Finns settled at cape Henlopen, which they named Paradise point, in 1627. In 1630 they built a fort at Lewistown, called Hoarkill; and, a year after, they built another near Wilmington, called fort Christee, and laid out a small town. Soon after, the Dutch at New-York, contested their right to the west bank of the Delaware. The Dutch put up a fort at Newcastle, in 1651, which the Swedes took from them the next year.

In 1655 the Dutch reduced the Swedish colony, sent the principal inhabitants prisoners to Holland, and received the rest under

their protection, making the country a part of their colony of New-Netherlands.

When the English took possession of that colony, in 1664, for the duke of York; his governors claimed jurisdiction over the west bank of the Delaware, and continued to exercise it till 1682. In that year, the duke gave William Penn a deed of Newcastle, and of a district 12 miles round it; and another of a tract from 12 miles S. of Newcastle to Hoarkill.

In 1703 a partial disunion took place between the *Three Lower Counties*, and the colony of Pennsylvania; and, by agreement, they were placed under the government of their own legislature.

The boundary line between the counties and Maryland, was settled, after a long dispute between the proprietors, in 1760.

In 1765 deputies were sent from the Lower Counties to the first congress at New-York.

In April, 1775, Richard Penn, proprietor of Pennsylvania, resigned his jurisdiction over the counties, whereby they became a distinct colony; and, in the September of the following year, a convention of representatives, chosen for the purpose, formed a constitution; and the territory, taking the name of Delaware, became a free and independent state. During the revolutionary war Delaware suffered severely; her citizens were distinguished for their exertions, and her troops for their valor.

A new constitution was formed for the state in June, 1792.

Religion.] In this state there is a variety of religious denominations. Of Presbyterians there are 24 churches; of Episcopalians, 14; of Friends, 8; of Baptists, 7; of Methodists, a considerable number, especially in the two lower counties of Kent and Sussex: the number of their churches is not exactly ascertained. Besides these there is a Swedish church at Wilmington, which is one of the oldest churches in the United States. This church stands half a mile below Wilmington, on Christiana creek. Near this place, during the 17th century, dwelt the principal part of the Swedes. The creek was named after Christina, then queen of Sweden, daughter of the celebrated Gustavus Adolphus. Many descendants of Swedes now live in this vicinity, but have nearly lost their native language. With these have associated a number of English, German, Scotch and Irish people, who together form one independent congregation, under the pastoral care of an Episcopal clergyman.

The Swedes in Delaware, with those of Jersey and Pennsylvania, were one ecclesiastic body during the Swedish mission. From mere generosity the Swedes furnished these churches with clergymen and valuable presents in religious books for a century. The missionaries were recalled, merely because the people, by mixing with others, had so far lost their mother tongue as to render the mission nearly useless. The Swedish Lutherans nearly agree in doctrines and rites with the church of England. Episcopal ordination is observed as a matter of expediency, not of divine institution. These churches now vacant have not fixed new charters,

Government.] The legislature consists of a senate and house of representatives. The representatives are chosen annually, and by counties. Each member must be 24 years of age, have a freehold in the county, and have been a citizen and inhabitant of the state, the three years, and of the county, one year, preceding the election. The senators are chosen triennially, and by counties; they must be 27 years of age, have a freehold in the county of 200 acres, or an estate of 1000*l.* and have resided the same period as the members of the other house. One third of the senators go out annually. The assembly meet in January.

All persons who have resided in the state two years next before the election and have paid taxes; and the sons of such persons; are voters.

Population.] The number of inhabitants was, in

1790	<div> <div>46,308 whites</div> <div>8,887 slaves</div> <div>3,899 free bl.</div> </div>	59,094	1810	<div> <div>55,361 whites</div> <div>4,177 slaves</div> <div>13,136 free bl.</div> </div>	72,674
1800	<div> <div>49,852 whites</div> <div>6,143 slaves</div> <div>8,278 free bl.</div> </div>	64,273			

The items of the census of 1810 were as follow :

	males.	females.	total.
Under 16 years of age	14,112	13,411	27,523
Between 16 and 45	11,016	11,068	22,084
45 and upwards	2,878	2,876	5,754
Total	28,006	27,355	55,361

Delaware had a smaller population than either of the other states, at each of the national enumerations.

Militia.] The militia of this state constitute one division, containing three brigades, one in each county. Each brigade comprises three regiments. The whole number of the militia, in 1810, including officers, was 8346; in 1813, 7451.

Literature.] There is no college in this state. A college was incorporated, and a building erected at Wilmington, in 1803, but it never went into operation, and the building is used for schools. There is an academy at Wilmington, and another at Newark, incorporated in 1769. Like institutions have been established at Lewiston, Dover, Milford, Georgetown, Newcastle, and Smyrna. The legislature, during their session in January, 1796, passed an act to create a fund for the establishment of schools throughout the state.

Towns.] WILMINGTON is a healthy, pleasant town, and port of entry, 27 miles S. W. of Philadelphia, containing 700 houses, mostly brick, and about 4500 inhabitants. It is situated two miles west of the river Delaware, between Christiana and Brandywine creeks, which, at this place, are about one mile from each other; but uniting below the town, they join the Delaware in one stream 400 yards wide at the mouth. The site of the principal part of the town is on the S. W. side of a hill, which rises 109 feet above the tide. On the N. E. side of the same hill, there are 13 mills for grain, and a considerable number of handsome dwelling houses, which form a beautiful appendage to the town. The Christiana admits vessels of 14 feet draught of water to the town, and those of six feet draught eight miles further, where the navigation ends; and the Brandywine admits those of seven feet draught to the mills. About the year 1735, the first houses were built in this place; and the town was incorporated a few years afterwards. Its officers are two burgesses, six assistants, and two constables, all of whom are chosen annually. There are 10 places of public worship, viz. 2 for Presbyterians, 1 for Friends, 2 for Episcopalians, 1 for Methodists, 1 for Baptists, 1 for Roman Catholics, and 2 for Africans. There is also a public edifice, built of stone, 120 feet in front, and 40 feet in depth, three stories high, for the reception of the paupers in Newcastle county. The United States have here an arsenal. Here are also 3 banks. There is also another stone building, used as an academy, where the classics are taught. There are about 400 children in the different schools of the town. A market is held twice a week, and is well supplied with provisions. Lat. 39 43 18.

The heights near Wilmington afford a number of agreeable prospects; from some of which may be seen the town, the adjacent

meadows, and four adjoining states. The celebrated battle of Brandywine was fought near this town.

DOVER, in the county of Kent, is the seat of government, for the state. It stands a few miles from Delaware river, and 36 miles below Newcastle, and has about 100 houses, principally of brick. Four streets intersect each other at right angles, whose incidences form a spacious parade, on the east side of which is an elegant state-house of brick. It has a jail, a bank, an academy, a house of worship for Presbyterians, and another for Episcopalians. Wheat is the principal article of export. The landing is five or six miles from the town of Dover.

NEWCASTLE is 33 miles below Philadelphia, and pleasantly situated on the W. bank of Delaware river. It was first settled by Swedes, about the year 1627, and called Stockholm. It was afterwards taken by the Dutch, and called New Amsterdam. When it fell into the hands of the English, it was called by its present name. It contains about 150 good houses, was formerly the seat of government, and has 2 houses of worship, for Presbyterians and Unitarians. It has also an academy, a court-house, and jail. This is the first town that was settled on Delaware river. It carries on a brisk trade with Philadelphia and Baltimore.

Milford is situated at the source of a small river, 15 miles from Delaware bay, and 150 southward of Philadelphia. This town, which contains about 80 houses, has been built, except one house, since the revolution. It is laid out with much good taste, and is by no means disagreeable. The inhabitants are Episcopalians, Quakers, and Methodists.

Duck Creek Cross Roads, is 12 miles N. W. from Dover, and has 80 or 90 houses, which stand on one street. It carries on a considerable trade with Philadelphia, and is one of the largest wheat markets in the state. Kent is also a place of considerable trade.

Port Penn is on the shore of the Delaware, 10 miles S. of Newcastle. It contains but few inhabitants; its harbor is safe, its commerce small. Piers are erected here.

Newport is situated upon Christiana creek, three miles W. of Wilmington. It contains about 200 inhabitants. The principal business is to transport flour to Philadelphia, and to bring in return foreign articles for the consumption of the country.

Christianabridge is at the head of the navigable part of the Christiana, eight miles S W. of Wilmington. It contains about 200 inhabitants. Its commerce is similar to that of Newport, but somewhat more considerable; being the greatest carrying place between the navigable waters of the Delaware and Chesapeake, which are 13 miles apart at this place.

Appoquiniminkbridge is 23 miles south of Wilmington; the village contains about 200 inhabitants. The principal business is the transportation of flour and grain to Philadelphia and Brandywine, and the sale of foreign goods for the consumption of the neighborhood.

Lewistown is situated a few miles above the lighthouse, on cape Henlopen. It contains about 150 houses, built chiefly on a street

which is more than three miles in length, and extending along a creek which separates the town from the pitch of the cape. The situation is high, and commands a full prospect of the lighthouse, and the sea. The court house and jail are commodious buildings, and with 2 houses of worship, for Presbyterians and Episcopalians and an academy, give an air of importance to the town. The situation of this place must, at some future time, render it of considerable importance. Placed at the entrance of a bay, which is crowded with vessels from all parts of the world, and which is frequently closed with ice a part of the winter season, necessity seems to require, and nature seems to suggest, the forming this port into a harbor for shipping. Nothing has prevented this heretofore, but the deficiency of water in the creek. This want can be cheaply and easily supplied by a small canal, so as to afford a passage for the waters of Rehoboth into Lewes creek, which would ensure an adequate supply. The circumjacent country is beautifully diversified with hills, wood, streams, and lakes, forming an agreeable contrast to the naked sandy beach, which terminates in the cape; but it is greatly infested with musketoes and sand flies.

Georgetown is about 15 miles west of Lewistown, and is now the seat of government for Sussex county. It contained, in 1804, about 30 or 40 houses, all built within a few years. The courts were removed to this place, as being more central than Lewis. It has a bank and an academy.

Canal.] The Delaware and Chesapeake canal is to pass between Elk river and Christiana creek. It has already been described. Another canal is to be opened between Levites creek and Rehoboth bay.

Manufactures.] Almost the whole of the foreign exports of Delaware are from Wilmington: the trade from this state to Philadelphia is great, being the principal source whence that city draws its staple commodity. No less than 150,000 barrels of flour, 300,000 bushels of wheat, 170,000 bushels of Indian corn, besides barley, oats, flaxseed, paper, slit iron, snuff, salted provisions, &c. &c. to a very considerable amount, are annually sent from the waters of the Delaware state; of which the Christiana is by far the most productive, and probably many times as much so as any other creek or river of like magnitude in the union—245,000 barrels of flour, and other articles to the amount of 80,000 dollars more, being from this creek; of which, to the value of 550,000 dollars, are manufactured on its northern bank, within two or three miles of the navigation.

Though Wilmington and its neighborhood, next to a part of Rhode Island, are probably the greatest seat of manufactures in the United States, yet, they are capable of being much improved in this respect, as the country is hilly, and abounds with running water; the Brandywine alone might, with a moderate expense, when compared with the object be brought to the top of the hill upon which Wilmington is situated, and a fall sufficient for forty mills, in addition to those already built, would be obtained.

The manufacture of flour is carried to a higher degree of perfection in this state, than in any other in the union. Besides the well constructed mills on Red Clay and White Clay creeks, and other streams in different parts of the state, the celebrated collection of mills at Brandywine merit a particular description. Here are to be seen, at one view, 12 merchant mills (besides a saw mill) which have double that number of pairs of stones, all of superior dimensions, and excellent construction. These mills are 3 miles from the mouth of the creek on which they stand, half a mile from Wilmington, and 27 from Philadelphia, on the post road from the eastern to the southern states. They are called the Brandywine mills, from the stream on which they are erected. This stream furnishes numerous seats (130 of which were occupied in 1810,) for every species of water works. The quantity of wheat manufactured at these mills, annually, is not accurately ascertained. It is estimated, however, by the best informed on the subject, that these mills can grind 400,000 bushels in a year. But although they are capable of manufacturing this quantity yearly, yet from the difficulty of procuring a permanent supply of grain, the instability of the flour market, and other circumstances, there are not commonly more than from about 290 to 300,000 bushels of wheat and corn manufactured here annually. In the fall of 1789, and spring of 1790, there were made at the Brandywine mills 50,000 barrels of superfine flour, 1354 do. of common, 400 do. middling, as many of ship stuff, and 2000 do. corn meal. The quantity of wheat and corn ground, from which this flour, &c. was made, was 308,000 bushels, equal to the export in those articles from the port of Philadelphia for the same year.

These mills give employ to about 200 persons, viz. about 40 to tend the mills, from 50 to 70 coopers to make casks for the flour, a sufficient number to man 12 sloops of about 30 tons each, which are employed in the transportation of the wheat and flour, the rest in various other occupations connected with the mills. The navigation quite to these mills is such, that a vessel carrying 1000 bushels of wheat may be laid along side of any of these mills; and beside some of them the water is of sufficient depth to admit vessels of twice the above size. The vessels are unloaded with astonishing expedition. There have been instances of 1000 bushels being carried to the height of 4 stories in 4 hours. It is frequently the case that vessels with 1000 bushels of wheat come up with flood tide, unlade and go away the succeeding ebb with 300 barrels of flour on board. In consequence of the machines introduced by the ingenious Mr. Oliver Evans three quarters of the manual labor before found necessary is now sufficient for every purpose. By means of these machines, when used in the full extent proposed by the inventor, the wheat will be received on the shallop's deck, thence carried to the upper loft of the mill, and a considerable portion of the same returned in flour on the lower floor, ready for packing, without the assistance of manual labor, but in a very small degree, in proportion to the business done. The transportation of flour from the mills to the port of Wilmington, does not require half an hour, and it is frequently the case that a cargo is taken from the mills and delivered at

Philadelphia the same day. The situation of these mills is very pleasant and healthful. The first mill was built here about the year 1750. There is now a small town of 40 houses, principally stone and brick, which, together with the mills and the vessels loading and unloading beside them, furnish a charming prospect from the bridge, from whence they are all in full view.

The manufacture of paper, iron, gunpowder, &c. has increased; gunpowder is but lately manufactured here; but it is believed the most expensive works of the kind are within 5 miles of Wilmington, and the powder, under the name of Brandywine powder, has obtained great celebrity. An estimate of the value of the different articles shipped from, and brought into the Christiana creek, exclusive of wood, hay, lumber, and plaster of Paris, exceeded 4 millions of dollars in 1804. The manufactures of the whole state, in 1810, according to the marshal's returns, was \$1,733,744.

The salt works at Lewistown are a curiosity. A length of 10,000 feet of works, for making salt, have been erected. The manner in which the works are covered from rain, the great distance which the salt water is conveyed in logs, and the ease and expedition with which the water is raised and conveyed into the vats, by wind mills, are adapted to fill beholders with admiration of the ingenuity and enterprize of the inventors.* These works, without the use of fuel, are stated, in 1812, to have produced, at the rate of 2,000 bushels a week, or 100,000 a year.†

Commerce.] The exports from Delaware, in 1804, amounted to \$697,396; in 1810, to \$120,342; in 1817, to \$44,854. Flour is the capital article. Lumber is also exported in large quantities, and is procured chiefly from the Cypress swamp.

CHAP. II.

NATURAL GEOGRAPHY.

FACE OF THE COUNTRY, SOIL AND AGRICULTURE, RIVERS, BAYS, SWAMPS, MINERALS.

Face of the Country.] THE northern half of the county of Newcastle is hilly. The rest of the state is generally level and low. Large tracts of land in the spring and early in the summer are over-spread with stagnant water, which renders them unhealthy, and unfit for agriculture. The spine, or height of land, in the peninsula between the two bays, is in this state. In the south it commences in the Cypress swamp, and preserves a general parallelism with the west coast of Delaware bay, at the distance of about 15 miles from

* S. G. Wright Esq. of Philadelphia, and David Thatcher, sen. of Massachusetts.

† Ree's Cyclop.

it. In the upper county it is on the border of Maryland. Its progress is marked by a chain of swamps, in the two lower counties and a part of Newcastle, from which the waters descend on each side to the Delaware and Chesapeake. The height of this ridge, between Elk river and Christiana creek, is 74 feet.

Soil and Agriculture.] Delaware is chiefly an agricultural state. It includes a very fertile tract of country; and scarcely any part of the union is better adapted to the different purposes of agriculture, or in which a great variety of the most useful productions can be so conveniently and plentifully reared. The soil along the Delaware river, and from eight to ten miles into the interior country, is generally a rich clay, producing large timber, and well adapted to the various purposes of agriculture. Thence to the swamps above mentioned, the soil is light, sandy, and of an inferior quality.

The general aspect of the country is very favorable for cultivation. In the county of Newcastle, the soil consists of a strong clay; in Kent, there is a considerable mixture of sand; and in Sussex, the quantity of sand altogether predominates. Wheat is the staple of this state. It grows here in such perfection, as not only to be particularly sought by the manufacturers of flour throughout the union, but also to be distinguished and preferred, for its superior qualities, in foreign markets. This wheat possesses an uncommon softness and whiteness, very favourable to the manufacture of superfine flour, and in other respects far exceeds the hard and flinty grains raised in general on the higher lands. Besides wheat, this state generally produces plentiful crops of Indian corn, barley, rye, oats, flax, buckwheat, and potatoes. It abounds in natural and artificial meadows, containing a large variety of grasses. Hemp, cotton, and silk, if properly attended to, doubtless would flourish very well.

The county of Sussex, besides producing a considerable quantity of grain, particularly of Indian corn, possesses excellent grazing lands. This county also exports very large quantities of lumber, obtained chiefly from an extensive swamp, called the Indian river, or Cypress swamp.

Rivers.] The Delaware, is for a small distance, the eastern boundary.

Brandywine creek rises in Chester county, Pennsylvania, and, running E. of S. 45 miles, falls into the Delaware, 2 miles below Wilmington. Christiana creek rises on the confines of Maryland, and pursues an easterly course of 25 miles to the Brandywine, falling in about a mile from the Delaware. It is navigable for boats to Christiana bridge, 13 miles. Duck creek is the frontier of Newcastle and Kent. The names of the other streams are Jones's creek, Motherkill, Mispillion creek, Broadkill, and Indian river. This last receives the waters of the Cypress swamp.

The Nanticoke runs a part of its course in Delaware.

Bays.] Delaware bay is half in this state and half in New-Jersey. Rehoboth bay, south of cape Henlopen, is separated by a narrow bar from the ocean.

Swamps.] More than half of Cypress swamp lies in Delaware. It is 12 miles long, from N. to S. and 6 wide, containing nearly

50,000 acres. It is a high and level basin, extremely wet, though on the ridge between the Chesapeake and the Atlantic. It contains a very great variety of plants, trees, wild beasts, birds, and reptiles. The succession of swamps farther north has been mentioned.

Minerals.] In the county of Sussex, among the branches of Nanticoke river, large quantities of bog iron ore are to be found. Before the revolution, this ore was worked to a considerable extent; it was thought to be of good quality, and peculiarly adapted to the purposes of castings. These works have chiefly fallen to decay.

MARYLAND.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT, BOUNDARIES, DIVISIONS, NAME, HISTORY, RELIGION, GOVERNMENT, POPULATION, MILITIA, BANKS, FINANCES, MANNERS AND CUSTOMS, LITERATURE, CHIEF TOWNS, ROADS, INLAND NAVIGATION, MANUFACTURES, COMMERCE.

Extent.] THE northern line of the state is 196 miles long. In the broadest part, on the east of the bay, it is 120 miles wide. In the narrowest, a little above Hancocktown, it is only 3 miles; at Cumberland 6; and, at the western boundary, 40. The number of square miles is about 14,000, of which about one fifth is water. It lies between lat. 37 56, and 39 44 N. and between lon. 75 10 and 79 20 W.

Boundaries.] Bounded N. by Pennsylvania and Delaware; E. by Delaware and the Atlantic; S. by Virginia and the Chesapeake; S. W. by the Potomac, which separates Maryland from Virginia; and W. by Virginia.

Divisions.] This state is divided into 19 counties, 11 of which are on the western, and 8 on the eastern shore of Chesapeake bay;

	Counties.	Population.			Chief towns.
		in 1790.	in 1800.	in 1810.	
Western shore.	Harford	14,976	17,626	21,258	Bellair
	Baltimore	37,937	59,030	75,810	Baltimore
	Ann-Arundel	22,598	22,623	26,668	Annapolis
	Frederick	30,791	31,423	34,437	Fredericktown
	Allegany	4,809	6,303	6,909	Cumberland
	Washington	15,822	18,850	18,730	Elizabethtown
	Montgomery	18,003	15,058	17,980	
	Prince George	21,344	21,185	20,589	Marlborough
	Calvert	8,652	8,297	8,005	St. Leonard
	Charles	20,613	19,172	20,245	Port Tobacco.
Eastern shore.	St. Mary's	15,544	13,699	12,794	Leonardstown
	Cecil	13,625	9,018	13,066	Elkton
	Kent	12,836	11,771	11,450	Chester
	Queen Ann	15,463	14,857	16,648	Centreville
	Caroline	9,606	9,226	9,453	Denton
	Talbot	13,084	13,436	14,230	Easton
	Somerset	15,610	17,358	17,195	Princess Ann
	Dorchester	15,875	12,346	18,108	Cambridge
	Worcester	11,640	16,370	16,971	Snow Hill
	Total	319,728	349,692	380,546	

Name.] Charles I. of England (in his patent to lord Baltimore, in 1632) gave the name of *Maryland* to this territory, in honor of his wife, Henrietta Maria, daughter of Henry the great of France and Navarre. It was then taken from Virginia.

History.] This territory was originally included in the patent of the South-Virginia company, and considered as a part of Virginia, till June 20, 1632, when the patent was granted to Cecilus Calvert, lord of Baltimore, in Ireland. The proprietor offered 50 acres in fee to every emigrant, and gave equal privileges to all classes of Christians.

In 1634, the first colony, consisting of 200 Roman Catholics, planted itself on the north side of the Potomac, at a place called St. Mary's. The first legislature was convened at St. Mary's in 1638, which divided the territory into baronies and manors, and passed a variety of laws. The next year the legislature passed a law establishing the house of assembly.

In 1642, a colony from Maryland took possession of the Schuylkill; but were immediately dispossessed by the Dutch from New-Netherlands. Owing to the intrigues of one Claiborne, the province was this year engaged in a calamitous Indian war.

In 1645, Claiborne raised a rebellion, and drove Calvert from the province.

The constitution of Maryland was settled in 1650; the legislature divided into two houses; and the province into three counties. Parliament violently assumed the government in 1652, and entrusted it to commissioners. A second insurrection took place in 1656, headed by one Fendal; and two years afterwards the commissioners sur-

rendered to the government. The next year the upper house of assembly was dissolved.

The government, in 1662, reverted to lord Baltimore, who re-assumed the administration, and established a mint. The same year the Janadoah Indians made frequent incursions, but were repelled by the aid of the Susquehannahs.

The assembly encouraged the importation of negro slaves, in 1671.

In 1692, the Protestant religion was established by law in this province.

Annapolis was made the seat of government, in 1699. The government was restored to Charles, lord Baltimore, the then proprietary, 1716. The boundary between Pennsylvania and the province was settled, by the proprietors, in 1732.

Maryland resisted the encroachments of parliament in 1769 ; and, in 1775, was forward in promoting the revolution ; but did not sign the articles of confederation till 1781. The present constitution of the state was formed in August, 1776.

Religion.] The number of Episcopal churches in 1811, was 30, and of clergymen 35, this number has been since increased. The Presbyterians are more numerous. The Roman Catholics were the first settlers ; and there are more of them in Maryland, than in all the other states beside. The other denominations are Methodists, German Lutherans, and Calvinists, Dutch and Associate Reformed Presbyterians, Baptists, Friends, Mennonists, Nicolites, and Swedenborgians.

Government.] The legislature is styled *the general assembly*, and consists of the senate and house of delegates. The senate is chosen by electors, who are elected by the freemen, (on the first Monday in September) every fifth year, two from a county and one from each of the cities of Annapolis and Baltimore. The electors meet at Annapolis, a fortnight after they are chosen ; and elect, by ballot, 9 senators from the western shore, and 6 from the eastern ; who hold their station 5 years. They must be 25 years of age ; have resided the preceding 3 years in the state ; and be worth above 1000*l*. The delegates are chosen annually on the first Monday in October. Four are sent by each county ; and two from each of the two cities. They must be 21 years of age, residents in the county, or city, during the preceding year, and worth above 500*l*. The assembly meets annually on the first Monday in November. The privilege of voting is possessed by all white persons, who are 21 years of age, and have paid taxes. The governor is chosen annually, on the second Monday in November, by a joint ballot of both houses ; and on the same day, an executive council of 5 persons is chosen in the same manner, for the same time ; who must have the same qualifications as senators. The governor must be 25 years of age, a resident the preceding 5 years, and worth 5000*l*. of which 1000*l*. must be freehold estate. He cannot be chosen but 3 years successively.

Population.] The number of inhabitants was in the year

1665 about 16,000

1734 about 36,000 taxables

1749 about 85,000 taxables

1755	{	55,319 free white males	}	153,564	nd is ne rects
		49,908 free white females			
		1,574 male convicts			
		407 female convicts			
		3,592 mulattoes			
		42,764 negro slaves			

1790	{	208 649 whites	}	219,728	1810	{	235,117 whites	}	380,546	
		103 036 slaves								111,502 slaves
		8 043 free bl								33,927 free bl.
1800	{	221 998 whites	}	349,692						
		107,707 slaves								
		19,987 free bl.								

The items of the census of 1810 were as follow :

	males.	females.	total.
Under 16 years of age	57,102	53 970	111,072
Between 16 and 45	47,943	46,783	94 726
45 and upwards	15,165	14,154	29,319
Total	120,210	114,907	235,117

Maryland is entitled to 9 representatives to congress.

In the two first national enumerations Maryland was the 6th state in point of population; and, in the third, the 8th. The increase of white inhabitants in the last 10 years was 13,119, or $5\frac{2}{11}$ per cent.; and that of the blacks, 17,735, or 14 per cent.

Militia.] The militia of this state amounted in 1813, to 32,189, consisting of able bodied men, between 18 and 45, and organized in the manner they are in the other states.

Banks.] There are 24 banks in this state, including branches, 10 of which are at Baltimore; the rest, in 14 different towns in other parts of the state.

Finances.] The funds of the state in 1811, amounted to \$1,721,852 92. The revenue is raised chiefly from taxes on real and personal property. The annual expenses of government are estimated at about £20,000, the dollar 7s 6d.

The state, in 1804, recovered, in the court of chancery in England, a claim amounting to about \$800,000. The county expenses are defrayed by county taxes, imposed by the levy courts.

Manners and Customs.] The inhabitants, except in the populous towns, live on their plantations. To a citizen of the eastern states, which are thickly populated, they appear to live very retired and unsocial lives. It is said, however, that there is no class of men in the world, who associate more with each other than the more opulent planters of Maryland. Their manners are as polished as those of the country gentlemen in England; their minds are well informed, and their intercourse free and social; their sons generally receive a liberal education, and many of them engage in the

studied to /, without any intention of pursuing it as a professionably

That which grows on slavery, and is habitual to those, who from their infancy are taught to believe and to feel their superiority, is a visible characteristic of the inhabitants of Maryland, and is common to all the states where slavery exists. But with this characteristic we must not fail to connect that of hospitality to strangers, which is equally universal and obvious. Many of the women possess all the amiable, and many of the elegant, accomplishments of their sex.

The inhabitants are made up of various nations of many different religious sentiments; few general observations, therefore, of a characteristic kind will apply. Their state treasury is rich, and their credit good; and although they have so great a proportion of slaves, yet a number of influential gentlemen have evinced their humanity and their disposition to abolish so disreputable a traffic, by forming themselves into a society for the abolition of negro slavery.

Literature.] Washington College was established at Chestertown in 1782; St. John's College, at Annapolis, in 1784; Cokesbury College, at Abington, in 1785. These institutions, the two former particularly, have considerable funds, but have not risen to distinguished eminence among our colleges, though useful institutions. The Catholics have a college in Baltimore. Academies have been established in most of the principal towns in the state, and there is an increasing attention to schools.

The legislature of this state about 10 years ago appropriated 25,000 dollars per annum for the encouragement and support of schools.

Chief Cities and Towns.] BALTIMORE is the largest city in Maryland; and the third in population, and the fourth in commercial importance, in the United States. Its growth has been more rapid than that of most other cities in this country. In about 50 years, it has increased from 300 to 70,000 inhabitants, its estimated present number, (1819.) It stands at the head of Patapsco bay, which sets up 18 miles N. W. from the Chesapeake. The upper part of the bay is called the harbor, and is connected with the bay at Whetstone point, about 2 miles below the town, by a narrow strait, scarcely a pistol shot across; which is defended by fort M^cHenry. Large vessels go up to Fell's point, which projects a considerable distance into the harbor, on the E. side of the city; only small vessels can go up to the other parts of the shore. The situation of that part of the city, which was first built, is low, and before the marshy grounds were filled up and other improvements made, was unhealthy. The more modern part of the city is elevated, and the whole may now be called healthy. The city is supplied with water from a fine living spring, within the limits of the city. A creek, called Jones's, enters into the head of the bay, dividing the city into two parts; the eastern and smallest of which is called the Old town. A number of bridges are thrown over this

creek. Market is the principal street, 86 feet wide, and is nearly parallel with the harbor. It is crossed by several streets, running from the water. The houses are chiefly of brick, and many of them are handsome, and some are splendid. The streets are paved. The public edifices are a spacious exchange, 360 by 140 feet, with 4 wings, designed for several public uses, viz the custom house, U. S. bank, post-office, and coffee-house, a court house, penitentiary, jail, hospital, almshouse, 3 market houses, museum, gallery for paintings, a theatre, a library of 10,000 vols. 6 houses of worship for Presbyterians, of different sects, 5 for Roman Catholics, 4 for Episcopalians, 4 for Methodists, 3 for Africans, 2 for Baptists, 2 for Friends, 1 for Lutherans, 1 for Independents, 1 for Dunkers, 1 for the followers of Swedenburgh, and 1 for Unitarians, 31 in all. Beside these are the edifices for the accommodation of the Medical, St. Mary's, and Baltimore colleges, all respectable institutions. A monument to perpetuate the memory of the battle with the British, of the 13th Sept 1814, which was the means of saving the city; and the Washington monument, erecting on an elevated spot, 50 feet square at bottom, 14 at top, on which, about 160 feet from the ground the figure of Washington is to be placed. The population, in 1790, was 13,503; in 1800, 26,514; and in 1810, in the city 35,583, of whom 7686 were blacks; and in the precincts 10,972, of whom 2657 were blacks: total in the city and precincts 46,555, of whom 10,343 were blacks. The commerce of Baltimore is very extensive, and is carried on with all parts of the world. The exports in 1798, amounted to more than \$12,000,000; and the year following, to \$16,300,000. In 1805, 72,210 tons of shipping were owned in this city, and in 1816, 101,960. This city is making rapid advances in every species of improvement. From the numerous manufactural establishments in its near vicinity, and the facility of its intercourse with foreign countries, and with different parts of our own country, by water, and by improved roads, it is become a desirable abode for men of business, of science, and of fortune. Lat. 39 21 N. lon. 76 35 W.

ANNAPOLIS is 30 miles S. of Baltimore, and 40 E. N. E. from Washington, on the S. bank of the Severn river, a small distance from its mouth. The state house is a noble edifice, and stands in the centre of the city. From this point the streets diverge in every direction, like the radii of a circle. The other public buildings are St. John's college, a Catholic institution, not in operation, an Episcopal and a Methodist church, a theatre, and market. The houses, about 350 in number, are well built. The number of inhabitants is about 2000. The aggregate tonnage for the year 1805, 2198 tons; 1816, 2553. This town is on the decline.

FREDERICKTOWN is a fine flourishing inland city of 5000 inhabitants. The houses are built principally of brick and stone, and mostly on one broad street. It is situated in a fertile country, about 4 miles south of Catokton mountain, and is a place of considerable trade. It has 7 places of worship, for Roman Catholics, Episcopalians, German Lutherans, and Calvinists, Presbyterians,

Baptists, and Methodists. Besides these there are an almshouse, court house, jail, academy, and two brick market houses. In November, 1797, there were 449 dwelling houses in this town, and 2606 inhabitants; 45 miles W. of Baltimore, 43 N. N. W. from Washington.

ELIZABETHTOWN, formerly called Hagarstown, is but little inferior to Fredericktown, and is situated in the beautiful and well cultivated valley of Conegocheague, and carries on a considerable trade with the western country. It has 4 houses of worship, and between 3 and 400 dwelling houses of brick and stone, a court house and jail.

ELKTON is situated near the head of Chesapeake bay, on a small river, which bears the name of the town. It enjoys great advantages from the carrying trade between Baltimore and Philadelphia. The tide waters extend to this town. It has about 100 houses, a court house and jail, a bank and academy.

Roads.] The turnpikes in Maryland lead chiefly to and from Baltimore. One from Baltimore N. W. to Reistertown, 16 miles, is 24 feet wide, and covered with a stratum of pounded stones 12 inches thick. The road there divides; one branch turning more to the N. meets the Pennsylvania line in 19 miles; the other in a W. N. W. course runs 29 miles in Maryland. The capital of the company is \$120,000. A turnpike from Baltimore to Boonsborough beyond the Blue Ridge, and 62 miles from Baltimore, is 22 feet wide, and covered with pounded stone 10 inches thick. About 40 of the 62 miles were completed in 1812. The capital stock is \$500,000. This road is to be extended 73 miles beyond Boonsborough to Cumberland. There it will meet the road of the United States, from Cumberland, 72 miles W. to Brownville, on the Monongahela; making the whole distance, from Baltimore to the navigable waters of the Ohio, 207 miles. This is the shortest communication, except that from the city of Washington, between tide water and the navigable western waters. A road had been commenced, in 1811, from Baltimore N. called the Falls turnpike. It is 22 feet wide, and has a stratum of pounded stones 10 inches thick. A bill for a turnpike between Baltimore and Washington, passed the legislature of this state, in December, 1811.

Inland Navigation.] A part of the Delaware and Chesapeake canal is to be in Maryland. The canals to improve the Potomac are also undertaken by a company incorporated by the states of Maryland and Virginia. Chesapeake bay and the Susquehanna completely divide the state: the Potomac is its southwestern boundary, and has been rendered navigable to the Shenandoah; so that no part of the state east of the Blue Ridge is more than 30 miles from navigable waters. Many of the creeks and arms of the Chesapeake are also navigable 20 or 30 miles into the country.

Manufactures.] Wheat is manufactured into flour in Frederick county (where there are 80 grist mills) to a great extent. Here are also two glass works, two iron works, two furnaces, two paper mills, and 400 stills, which make vast quantities of rye whisky; some single distilleries produce 12,000 gallons a year. The value of the manufactures of this state in 1810, was \$11,468,794.

Commerce.] The exports from Maryland, in 1779, amounted to \$16,299,609 ; in 1804, to \$9,151,939 ; and, in 1810, to \$6,489,018 ; in 1817, to \$8,933,930. Flour is the staple of the state. Tobacco is also a most important article. The other exports are pig iron, lumber, maize to a considerable amount, and beans, pork, and flax-seed in smaller quantities. The aggregate tonnage of this state, in 1805, was 108,040 tons, in 1816, 156,062.

CHAP. II.

NATURAL GEOGRAPHY.

FACE OF THE COUNTRY, SOIL AND AGRICULTURE, RIVERS, BAYS, SWAMP, MOUNTAINS, MINERALOGY.

Face of the Country.] THE land, in the counties on the eastern shore of the Chesapeake, is generally level and low ; and, in many places covered with stagnant water. On the western shore, the land, between the bay and the lowest falls of the rivers, is in great part level and free from stones. From these falls to the Blue Ridge, the country is successively uneven, hilly, and mountainous. It continues of this latter description thence to the western limit of the state. There are, however, several fine vallies between the western mountains along the course of Youhiogany.

Soil and Agriculture.] The soil of the good land in Maryland is of such a nature and quality as to produce from 12 to 16 bushels of wheat, or from 20 to 30 bushels of Indian corn per acre. Ten bushels of wheat, and 15 bushels of corn per acre, are the annual average crops in the state at large.

Since the Hessian fly has found its way into Maryland, the crops of wheat have been diminished ; the ravages of this insect sometimes destroy whole fields. The farmers, however, are beginning to resist it by constant manuring and late seeding.

Wheat and tobacco are the staple commodities. Tobacco is generally cultivated in sets, by negroes in the following manner : the seed is sown in beds of fine mould, and transplanted the beginning of May. The plants are set at the distance of three or four feet from each other, and are hilled and kept continually free from weeds. When as many leaves have shot out as the soil will nourish to advantage, the top of the plant is broken off, to prevent its growing higher. It is carefully kept clear of worms, and the suckers which put up between the leaves, are taken off at proper times, till the plant arrives at perfection, which is in August. When the leaves turn of a brownish color, and begin to be spotted, the plant is cut down and hung up to dry, after having sweat in heaps one night. When it can be handled without crumbling, the leaves are stripped from the stalk, tied in bundles, and packed for exportation, in hogsheads containings 800 or 900 pounds. No suckers nor ground leaves are allowed to be merchantable. An industrious person may

manage 6000 plants of tobacco, and four acres of Indian corn. About 6000 plants yield 1000 pounds of tobacco. Some cotton is raised in this state, of an inferior quality, and manufactured in families. In the interior country, on the uplands, considerable quantities of hemp and flax are raised. As long ago as 1751, in the month of October, no less than 60 waggon, loaded with flaxseed, came down to Baltimore from the back country.

Two articles are said to be peculiar to Maryland; the genuine *white* wheat which grows in Kent, Queen Ann's, and Talbot counties, on the eastern shore, and which degenerates in other places; and the bright *kite's foot* tobacco, which is produced on the Patuxent, below Elkridge in Prince George's county.

The apples of this state are large, but mealy; their peaches plenty and good. From these the inhabitants distil cider, and peach brandy.

The forests abound with nuts of various kinds, which are collectively called *mast*. On this mast vast numbers of swine are fed, which run wild in the woods. These swine, when fatted, are caught, killed, barrelled, and exported, in great quantities. This traffic formerly was carried on to a very considerable extent.

Rivers.] The Potomac is the whole southwestern boundary of Maryland. The Susquehannah runs in the state about 16 miles, emptying at Havre de Grace. The Youhiogany flows near the western line of the state, running in it a northerly course of 40 miles. These have already been described.

The Patuxent rises a little N. of the parallel of Baltimore, and about 30 miles W. of that town. It runs S. E. and S. about 110 miles, to the Chesapeake, emptying between Drum and Cedar points. It admits vessels of 250 tons to Nottingham, 46 miles, and boats to Queen Ann, 14 miles farther. On the north side a high red bank reaches a considerable distance from Drum point up the river; and, as soon as a vessel has passed that point, it finds a deep harbor with 3 fathom water, sheltered from every wind.

The Patapsco heads in the northern part of the state, and runs S. and S. E. to Elkridge landing; where it falls down a moderate precipice, and, turning eastwardly, spreads into a broad stream, like a bay. It falls into Patapsco bay, at Whetstone point, about 2 miles below Baltimore, and is navigable to Elkridge landing, 8 miles.

On the eastern shore the Pocomoke rises in Cypress swamp, in Delaware, and runs S. and S. W. 40 miles, to Pocomoke bay. The Wicomico rises in the same state, and runs S. W. about 20 miles.

The Nanticoke rises in the ridge of the peninsula, in Delaware, and runs S. S. W. 25 miles in that state, and 30 in Maryland. It is the largest river between the two bays.

The Choptank rises on the border of the same state in the same ridge, and runs S. by W. 30 miles, and W. by N. 15. It is a broad navigable stream.

Chester and Sassafras rivers, flow north of the Choptank.

Elk river rises in Chester county, Pennsylvania, and runs E. of S. 22 miles to Elkton, where it receives the Little Elk from the N. W. Thence it runs S. W. 13 miles to the Chesapeake, the whole of which it is navigable for vessels drawing 12 feet water.

The chief branches of the Potomac in Maryland are Monocasy, Antietam, and Flintstone creeks. They all rise in Pennsylvania.

Bays.] Nearly two thirds of the length of the Chesapeake bay lies in Maryland. The creeks connected with it are merely branches of the Chesapeake, from 10 to 20 miles long, with a little stream of fresh water flowing into the head of each. The largest of these bays on the western shore are Patapsco bay, and the mouth of Patuxent river; on the eastern, the mouths of the Chester, Wye, Choptank, and Nanticoke. Senipuxen bay is only a channel between the eastern coast, and a succession of sand and islands.

Swamp.] A part of Cypress swamp, partly in Delaware, has already been mentioned, as lying in Maryland.

Mountains.] The various ridges of the Allegany mountains cross the western and narrow parts of this state. The most eastern ridge is the South mountain, and then the Blue ridge; between which and the Allegany range are various ridges of mountains, which run but a short distance in Maryland.

Mineralogy.] Iron ore, of an excellent quality is found in plenty in many parts of the state. Two beds of coal have been opened within a mile of the city of Baltimore.

DISTRICT OF COLUMBIA.

EXTENT AND SITUATION, BOUNDARIES, DIVISIONS AND GOVERNMENT, RELIGION, CITIES, COMMERCE, RIVERS, CANALS, TURNPIKE ROADS.

Extent and Situation.] THIS district is a square with a side of 10 miles, and of course contains 100 square miles, or 64,000 acres. It lies on both sides of the Potomac, and 120 miles from its mouth, embracing a section of that river, extending from the southern part of Alexandria, to a point 5 miles above Georgetown, including a part of one of the Potomac canals. It was ceded by the states of Maryland and Virginia to the United States, in 1790; and was accepted by congress in July of that year; and in 1800, became the seat of the government of the United States. This district includes the cities of Washington, Georgetown, and Alexandria. It is situated between lat. $38^{\circ} 48'$ and $38^{\circ} 59'$ N. and the capital is in about $77^{\circ} 00' 22''$ W. lon. from London.

Boundaries.] On the S. E. N. E. and in part on the N. W. it borders on Maryland; on all other sides, on Virginia.

Divisions and Government.] The district is divided as follows:

Counties.	Population.	Counties.	Population.
Washington	8,208	Alexandria	7,227
Georgetown	4,948	Alexandria county, exclusive of the town	1,325
Washington county, exclusive of the city and Georgetown	2,315		
			24,023
Of these 5,395 are slaves.			

The laws of the two states from which the District of Columbia was taken, are continued in the parts taken from each.

Congress, however, makes what laws it pleases for both, and is now engaged in forming a new and uniform code for the whole district. A circuit court is established in this district, consisting of 3 judges, which sits on the 4th Monday of March, June, September, and December, at the city of Washington for the county of Washington; and on the 2d Monday of January, April, and July, and the 1st Monday of October, at Alexandria, for the county of Alexandria. Appeals and writs of error go from this court directly to the supreme court of the United States. A register of wills, a judge of the orphan's court, and justices of the peace, are appointed for each county; and an attorney and marshal for the district. The supreme court of the United States sits at Washington, on the first Monday of February annually. The city corporation consists of a mayor, 8 aldermen, and 12 common council men, who regulate the affairs of the city by ordinances. The citizens are orderly; and there has been hitherto no occasion for a city watch.

Religion.] Presbyterians and Episcopalians are the two prevailing denominations in the district. There are also here Roman Catholics, Methodists, and Baptists, all of whom have places for public worship. See the description of the cities following.

Cities.] WASHINGTON city is built on the Maryland (the N. E.) side of the Potomac, on a point of land, between what is called the Eastern Branch and the Potomac. Its plan, as laid out, extends nearly 4 miles up each of those rivers.

Although the land, on which the city is situated, in general appears level, yet by gradual swellings, a variety of elegant prospects are produced, and a sufficient descent formed for conveying off the water, which falls in rains. Within the limits of the city are a great number of excellent springs; and by digging wells, water of the best quality is found. Besides, the never failing streams that now run through this district may also be collected for the use of the city. The waters of Reedy Branch and of Tyber creek may be conveyed to the president's house. The source of Tyber creek is elevated about 236 feet above the level of the tide. The perpendicular height of the ground on which the capitol stands, is 78 feet above the level of the tide in Tyber creek. The water of this creek may therefore be conveyed to the capitol, and after watering that part of the city, may be destined to other useful purposes. The Tyber is tributary to a canal cut in 1811, from the Eastern Branch, communicating with the Potomac. The Eastern branch forms a safe and commodious harbor, being sufficiently deep for the largest ships, for about 4 miles above its mouth, while the channel lies close along the bank adjoining the city, and affords a large and convenient harbor. The Potomac, although navigable for small craft only, for a considerable distance from its banks next the city, (excepting about half a mile above the junction of the rivers) will nevertheless afford a capacious summer harbor; as a large number of ships may ride in the great channel, opposite to, and below the city. The situation of this metropolis is upon the great post road about equidistant from the north-

ern and southern extremity of the Union, and nearly so from the Atlantic and Pittsburg, upon the best navigation, and in the midst of a commercial territory, probably the richest, and commanding the most extensive internal resources, of any in America, if we except New-York. It has therefore many advantages to recommend it as an eligible place for the permanent seat of the general government.

The plan of this city appears to contain some important improvements upon that of the best planned cities in the world; combining, in a remarkable degree, convenience, regularity, elegance of prospect, and a free circulation of air. The positions of the different public edifices, and for the several squares and areas of different shapes, as they are laid down, were first determined on the most advantageous ground, commanding the most extensive prospects, and from their situation susceptible of such improvements as either use or ornament may hereafter require. The capitol, which is the dividing point of all the streets, is situated on a pleasant eminence, commanding a view of every part of the city, and of a considerable portion of the country around. The president's house stands on a rising ground, possessing a water prospect, together with a view of the capitol, and the most material parts of the city. Lines or avenues of direct communication have been devised to connect the most distant and important objects. These transverse avenues, or diagonal streets, are laid out on the most advantageous ground for prospect and convenience, and are calculated not only to produce a variety of prospects, but greatly to facilitate the communication throughout the city. N. and S. lines, intersected by others running due E. and W. make the distribution of the city into streets, squares, &c. and those lines have been so combined, as to meet at certain given points, with the divergent avenues, so as to form, on the spaces *first determined*, the different squares or areas. The grand avenues, and such streets as lead immediately to public places, are from 130 to 160 feet wide, and may be conveniently divided into foot ways, a walk planted with trees on each side, and a paved way for carriages. The other streets are from 90 to 110 feet wide. In order to execute this plan, Mr. Ellicott drew a true meridional line by celestial observation, which passes through the area intended for the capitol. This line he crossed by another, running due E and W. which passes through the same area. These lines were accurately measured and made the basis on which the whole plan was executed. He ran all the lines by a transit instrument, and determined the acute angles by actual measurement, leaving nothing to the uncertainty of the compass.

The city contained in 1810, 8,208, of whom 5,904 were whites, and 2,304 blacks. It now (1819) is supposed to contain nearly 16,000 souls. The principal buildings and establishments, in this rising metropolis of the U. States, are the following. 1 The Capitol, the two wings of which only had been built, till 1818. 2. The president's house, $1\frac{1}{2}$ mile W. of the capitol. 3. The buildings for the heads of departments, in a line E. and W. of the President's house. 4. Marine barracks. 5. an extensive Navy yard, in which is a marble monument commemorative of those heroes, who fell before Tripoli. 6. A Fort on the extreme point of the city, which com-

mands the channel of the Potomac. 7. The general Post and Patent offices. These buildings are in 5 separate divisions or villages; 1 near the capitol, 1 near the navy yard, 1 at Greenleaf's point, 1 near the president's house, and 1 near Georgetown. This last is the smallest, and that at Greenleaf's point is the most solitary. There are 10 houses for religious worship. 2 Episcopal, 1 Catholic, 1 Presbyterian, 1 Associate Reformed, do. 2 Baptist, 2 Methodist, and 1 for Friends. The national library, the patent office, with several of the public buildings were wantonly burnt and destroyed by the British army, in their hostile visit to this city, in 1814. The library of Mr. Jefferson, of about 8 000 volumes, has since been purchased by Congress; and the other losses sustained, in the buildings in particular, appear to have been since more than repaired. The president's house is 170 by 85 feet, two stories high. It is built of free white stone, the roof covered with slate. The plan of the capitol is to present, when completed, a front of 362 feet. The hotel stands at the corner of 7th and 8th streets, extending 60 feet on the first, 120 on the other. The goal is 100 feet by 26, two stories high. In the city are 4 market houses. There is a city library, a theatre, a medical and botanical Society, a female orphan assylum. A steam boat passes regularly to Aquia, about 60 miles from this city, down the Potomac. Here are nine printing offices, whence are issued 19 newspapers every week. Public baths, an infirmary, penitentiary, Lancastrian schools, with many other improvements, are rendering this city a desirable place of residence, and creditable to our country.

ALEXANDRIA, formerly *Belhaven*, is at the southern corner of the district, and has an elevated and pleasant situation. It is built on the plan of Philadelphia. Many of the houses are handsome. Its public buildings are, 2 Presbyterian churches, 2 for Episcopalians, 1 for Methodists, 1 for Baptists, 1 for Friends, 1 for Catholics; a handsome market-house, 3 stories high, a theatre, an academy, court house, jail, and 6 banks. It contained, in 1800, 5,071 inhabitants, and in 1810, 7,227. Its exports, in 1810, amounted to \$930,634, and the tonnage, in 1807, to 11,320 tons, and in 1816 to 11,811. It has a commodious harbor, with water sufficient for the largest ships, and is a place of extensive trade. More than 200,000 barrels of flour have been lately inspected here in a single year.

GEORGETOWN, on the Maryland side, is separated by Rocky creek from the city of Washington, and lies 4 miles W. from the capitol, and 8 from Alexandria. It is built on a number of small hills, and has a pleasant situation. It has 5 churches, the Episcopalians have 2, Presbyterians 1, Baptists 1, and Methodists 2. The other public buildings are the Catholic college, established in 1799, which has 2 spacious brick edifices, finely situated, with a library of about 7,000 volumes. It has about 140 to 150 students, who are taught by a competent number of instructors, in the several branches of science. Here is also an academy, court house, jail, and 4 banks. Population, in 1810, 4,948. The exports, in 1810, amounted to \$107,439; the tonnage, in 1807, to 2,110 tons, in 1816, to 6,839 tons.

Commerce.] The exports from this district in 1810, amounted to \$1,038,103, of which \$984,463, were of domestic produce, and

53,640 of foreign. In 1817, to \$1,768,658, of this amount \$1,561,837 were from Georgetown. The aggregate tonnage in 1807, was 13,431 tons. Georgetown and Alexandria are the only ports.

Rivers.] The Potomac intersects this district and is navigable, close to the bank, for large ships half a mile above Greenleaf's point, and in the channel some distance farther. The Eastern Branch, as it is called, rises in Maryland, and flows about 20 miles. It is chiefly a bay of the Potomac, and is navigable 4 miles along the bank for the largest ships. Rock creek runs southerly about 16 miles. Tyber, or Goose creek, is a small stream, running through the city. Its source being 236 feet above the level of the Potomac, it can be made the reservoir of aqueducts for any part of the city. Four Mile Run falls into the Potomac from the Virginia side, opposite the Eastern Branch.

Canals, Bridges, Turnpike Roads.] A canal has been opened, connecting the Tyber with the Eastern Branch, the tide flows into it 5 or 6 inches deep. Beside this, is a canal of much importance to the city, which passes the Little Falls, above Georgetown, through which is brought the greater part of the flour used in the district, and exported from it, and also many marble columns for the city edifices. Two bridges are built over Rock creek, which divides the city from Georgetown. The bridge near the mouth of the creek has three arches, is about 135 feet in length, and 36 wide. The other, 650 yards above, is supported by piles, is about 280 feet long, and 18 wide. A bridge, over the Potomac, within this district, was built in 1809, on piles, 1 mile long, and another over the Eastern Branch. A turnpike from Mason's causeway, to Alexandria; one to intersect the Little River turnpike, and one through Bladensburg to Baltimore, have been completed. One to Montgomery court house, and another to meet the great Cumberland road, are contemplated.

SOUTHERN STATES.

UNDER this grand division is comprehended the following states, viz.

Virginia
North-Carolina
South-Carolina

Georgia
Florida
Alabama

VIRGINIA.

CHAPTER I.

HISTORICAL GEOGRAPHY.

EXTENT, BOUNDARIES, DIVISIONS, NAME, HISTORY, RELIGION, GOVERNMENT, LAWS, POPULATION, MILITIA MANNERS AND CUSTOMS, LITERATURE, CHIEF TOWNS, ROADS, CANALS, NAVAL DEPOTS, MANUFACTURES, COMMERCE.

Extent.] THIS state lies between lat. 36 30 and 40 43 N; and between lon. 75 25 and 83 40 W. Its length, on the southern line of the state, is 440 miles. Its greatest breadth is 290. The number of square miles is estimated at 70,000. A narrow strip of land runs northward between Pennsylvania and the Ohio river; another wedge-like strip passes between Kentucky and Tennessee; and the counties on the eastern shore, are the lower part of a peninsula, separated from the rest of the state by the width of the Chesapeake. Exclusive of these, Virginia is compact.

Boundaries.] Bounded N. by Pennsylvania, and Maryland; E. by Maryland and the Atlantic; S. by North-Carolina and Tennessee; W. by the Cumberland mountains and Big Sandy river, which divide it from Kentucky and Tennessee; and N. W. by Ohio river, which divides it from the state of Ohio.

Divisions.] The following are the divisions, and number of inhabitants in each, of this state, according to the census of 1810.

Counties.	No. Inhab.	Chief towns.	Counties.	No. inhab.	Chief towns.
Accomac	15,743	Dummond	Fauquier	22,689	Warrenton
Albemarle	13,268	Charlottesville	Fairfax	13,111	Centreville
Amelia	10,594		Fluvanna	4,775	Columbia
Amherst	10,548	New-Glasgow	Frederick	22,574	Winchester
Augusta	14,308	Staunton	Franklin	10,723	Rocky Mount
Bath	4,837	Warm Springs	Gloucester	10,427	
Bedford	16,143	Liberty	Goochland	10,203	
Berkeley	11,479	Martinsburgh	Grayson	4,941	Granville
Botetourt	13,301	Fincaastle	Greenbrier	5,914	Lewisburg
Brooke	5,843	Charlestown	Gramsville	6,853	Hicksford
Brunswick	15,411		Giles	3,745	
Buckingham	20,059	New-Canton	Halifax	22,133	South-Boston
Campbell	11,001	Lynchburg	Hampshire	9,784	Romney
Caroline	17,544	Port Royal	Hanover	15,082	Hanover
Charles City	5,186		Hardy	5,525	Moorfields
Charlotte	13,161	Marysville	Harrison	9,958	Clarksburg
Chesterfield	9,979	Manchester	Henrico	9,945	RICHMOND
Cumberland	9,992	Cartersville	Henry	5,611	Martinsville
Culpepper	18,967	Fairfax	Isle of Wight	9,186	Smithfield
Cabell	2,717		James City	4,094	Williamsburg
Dinwiddle	12,524	Petersburg	Jefferson	11,851	Charlestown
Elizabeth city	3,608	Hampton	Kanahawa	4,868	Charlestown
Essex	9,376	Tappahannoo	King and Queen	10,988	Dunkirk

Counties.	No. In.	Chief towns.	Counties.	No. In.	Chief towns.
King George	6,404		Preston*		
King William	9,285	Delaware	Prince Edward	12,409	Jamestown
Lancaster	5,592	Kilmarnock	Princess Anne	9,498	Kempsville
Lee	4,694	Jonesville	Prince William	11,311	Haymarket
Lewis*			Prince George	8,050	
Loudon	21,338	Leesburgh	Randolph	2,854	Beverly
Louisa	11,900		Richmond county	6,214	
Lunenburg	12,265	Hungary	Rockbridge	10,313	Lexington
Madison	8,371	Madison	Rockingham	12,753	
Matthews	4,227		Russell	6,316	Franklin
Mecklenburg	18,453	St. Tammany	Scott*		
Middlesex	4,414	Urbana	Shenandoah	13,646	Woodstock
Monongalia	12,793	Morgantown	Southampton	13,497	Jerusalem
Monroe	5,414	Uniontown	Spotsylvania	13,296	Fredericksbg.
Montgomery	8,409	Christiansburg	Stafford	9,830	Falmouth
Mason	1,991	Point Pleasant	Surry	6,855	Cobham
Nansemond	10,324	Suffolk	Sussex	11,362	
New-Kent	6,478	Cumberland	Tazewell	3,007	Jeffersonville
Nicholson*			Tyler*		
Norfolk count.	13,679	Norfolk	Warwick	1,835	
Northampton	7,474		Washington	12,156	Abingdon
Northumberland	8,308	Bridgetown	Westmoreland	8,102	Leeds
Nottoway	9,278		Wood	3,036	Newport
Nelson	9,684		Wythe	8,356	Evansham
Ohio	8,175	Wheeling	York	5,187	York
Orange	12,323	Stannardsville	City of Richmond	9,735†	
Patrick	4,695		Norfolk borough	9,193	
Pendleton	4,239	Franklin	Petersburg	5,668	
Pittsylvania	17,172	Danville			
Powhatan	8,073				
			Total 163	974,622	

Name.] Queen Elizabeth, in 1584, gave the name of *Virginia* to, a much larger tract of country than that included in its present limits, as a memorial that its discovery was made under a virgin queen. Juan Ponce a Spaniard, as early as 1512, had discovered *Florida*; and the French and Spaniards gave that name to a tract of country of indefinite extent, in which Virginia was included.

History.] Sir Walter Raleigh, in 1584 obtained of queen Elizabeth a patent for discovering remote heathen and barbarous lands. An expedition under Philip Amadas and Arthur Barlow set sail in April, and arrived on the American coast on the 4th of July, of that year. They landed at the island of Wocokom, on the 26th of that month, and soon after on the main land of Virginia.

In 1606, king James divided the territory called Virginia into 2 districts, North and South Virginia. A permanent settlement was made the next year, at Jamestown, under governor Wingfield.

In 1610, lord Delaware was entrusted with the entire government, and furnished large supplies to the colony.

In 1612, the third charter was granted.

In 1613, John Rolfe married Pocahontas, daughter of Powhatan, an Indian chief, and 3 years after carried her to England, where she died. She left a son, from whom some of the most respectable families in Virginia have descended.†

* New Counties, since the last census.

† In 1819, 16,000.

‡ We insert here the following very interesting portion of ancient history, connected with the above article, taken from "The Generall Historie of Virginia, New-England, and the Summer Isles, with the names of the Adventurers,

The adventurers, in 1615, had the title to their lands vested in them ; before, they had held them as tenants at will.

Planters and Governours from their first beginning, An. 1584, to this present 1626, &c. By Captain John Smith, Sometymes Governor of those Countreyes, and Admiral of New-England, London Printed. 1639." This book is out of print. What follows is from the *Richmond Compiler*.

"Before she arrived at London, Captaine Smith, to deserue her former courtesies, made her (Pocahontas) qualities knowne to the Queenes most excellent Maiestie and her court, and writ a little booke to this effect to the Queene : An abstract whereof follows.

To the most high and virtuous princesse Queene Anne of Great Brittanie.

"*Most admired Queene*—The loue I beare my God, my king and countrie, hath so oft emboldened mee in the worst of extreme dangers, that now honestie doth constraîne mee to presume thus farre beyond my selfe, to present your Maiestie this short discourse : if ingratitude be a deadly poyson to all honest vertues, I must bee guiltie of that crime if I should omit any means to bee thankfull. So it is,

"That some ten yeeres agoe being in Virginia, and taken prisoner by the power of *Powhatan* their chiefe king, I receiued from this great saluage exceeding great courtisie, especially from his sonne *Natagans*, the most manliest, comliest, boldest spirit, I euer saw in a saluage, and his sister *Pocahontas*, the king's most dear and well beloued daughter, being but a childe of twelue or thirteene yeeres of age, whose compassionate pitifull heart, of my desperate estate, gaue me much cause to respect her ; I being the first Christian this proud king and his grim attendants euer saw : and thus intrahled in their barbarous power, I cannot say I felt the least occasion of want that was in the power of those my mortal foes to preuent, notwithstanding all their threats. After some six weeks sitting amongst those saluage courtiers, at the minute of my execution, she hazarded the beating out of her owne braines to saue mine, and not only that, but so preuailed with her father, that I was safely conducted to *James towne*, where I found about eight and thirtie miserable poore and sicke creatures, to keep possession of all those large territories of *Virginia*, such was the weaknesse of this poor commonwealth, as had the saluages not fed us, we directly had starued.

"And this reliefe, most gracious Queene, was commonly brought vs by this lady *Pocahontas*, notwithstanding all these passages when inconstant Fortune turned our peace to warre, this tender virgin would still not aspare to dare to visit vs, and by her our iarres haue oft beene appeased, and our wants still supplied ; were it the policie of her father thus to employ her, or the ordinance of God thus to make her his instrument, or her extraordinarie affection to our nation, I know not ; but of this I am sure, when her father, with the vtmost policie and power, sought to surprize mee, hauing but eighteene with mee, the darke night could not affright her from comming through the irksome woods, and with watered eies gaue mee intelligence, with her best aduice to escape his furie, which had hee knowne, hee had surely slaine her. *James towne* with her wilde traine she as freely frequented, as her fathers habitation ; and during the time of two or three yeeres, she next vnder God, was still the instrument to preserue this colonie from death, famine and vtter confusion, which if in those times had been dissolved, *Virginia* might haue line as it was at our first arriual to this day.—Since then, this business haue beene turned and varied by many accidents from that I left it at ; it is most certaine, after a long and troublesome warre after my departure, betwixt her father and our colonie, all which time she was not heard of, about two yeeres after shee her selfe was taken prisoner, being so detained neere two yeeres longer, the colonie by that meanes was relieved, peace concluded, and at last reiecting her barbarous condition, was married to an *English* gentlemen, with whom at this present she is in *England* ; the first Christian euer of that nation, the first *Virginian* euer spake in *English*, or had a childe in marriage by an *Englishman*, a matter surely, if my meaning bee truly considered and well vnderstood, worthy a princess vnderstanding.

"Thus most gracious Lady, I haue related to your Maiestie, what at your best leasure our approued histories will account you at large, and done in the time your Maiesties life, and howeuer this might be presented you from a more worthy pen, it cannot from a more honest heart ; as yet I neuer begged any

A large colony came over in 1618, under lord Delaware, who died on the voyage. and the next year the first colonial assembly was convoked at Jamestown.

A colony of 1216 persons arrived in 1620, among whom were 90 girls, "young and uncorrupt," who came over to marry as many of the adventurers. They succeeded so well that 60 more came over the next year. The husbands were obliged to buy them of the

thing of the state, or any, and it is my want of abilitie and her exceeding desert, your birth, meanes and authorite, hir birth, vertue, want and simplicitie, doth make mee thus bold, to beseech your Maiestie to take this knowledge of her, though it be from one so unworthy to be the reporter, as my self, her husbands estate not being able to make her fit to attend your Maiestie: the most and least I can doe, is to tell you this, because none so oft hath tried it as my selfe, and the rather being of so great a spirit, howeuer her stature: if she should not be well received, seeing this kingdome may rightly haue a kingdome by her meanes; her present loue to vs, and Christianitie, might turne to such scorn and furie, as to diuert all this good to the worst of euill, where finding so great a Queene should doe her some honour more than she can imagine, for being so kind to your seruants and subjects would so rauish her with content, as encrease her dearest blood to effect that your Maiestie and all the kings honest subjects most earnestly desire And so I humbly kisse your gracious hands."

"Being about this time preparing to set saile for *New-England*, I could not stay to doe her that seruice I desired, and shee well deserved; but hearing shee was at *Branford* with diuers of my friends, I went to see her: After a modest salutation, without any word, she turned about, obscured her face, as not seeming well contented: and in that humour her husband, with diuers others, we all left her two or three houres, repenting my selfe to have writ she could speake *English*. But not long after, she began to talk: and remembered mee well what courtesies shee had done: saying, You did promise *Powhatan* what was yours should bee his, and he the like to you: you called him father, being in his land a stranger, and by the same reason must I doe you: which though I have excused, I durst not allow of that title, because she was a kings daughter: with a well set countenance, she said, Were you not afraid to come into my fathers countrie, and caused feare in him and all his people (but mee) and feare you here I should call you father: I tell you then I will, and you shall call me childe, and so I will be for euer and euer your countryman. They did tell vs alwaies you were dead, and I knew no other till I came to *Plimoth*; yet *Powhatan* did command *Vitamatokkin* to seeke you, and know the truth, because your countrymen will lie much.

"This Saluage, one of *Powhatans* counsell, being amongst them, held an understanding fellow: the king purposely sent him, as they say, to number the people here, and informe him well what wee were and our state. Arriving at *Plimoth*, according to his directions, he got a long stick, whereon by notches he did thinke to haue kept the number of all the men he could see, but he was quickly wearie of that taske: Coming to London where by chance I met him, hauing renewed our acquaintance, where many were desirous to heare and see his behaviour, hee told mee *Powhatan* did bid him to finde me out, to show him our God, the king, queene and prince, I so much had told them of: Concerning God, I told him the best I could, the king I heard he had scene, and the rest hee should see when he would: he denied euer to haue scene the king, till by circumstances he was satisfied he had: Then he replied very sadly, You gaue *Powhatan* a white dog, which *Powhatan* fed as himself, but your king gaue me nothing, and I am better than your white dog

"The small time I staid in London, diuers courties and others, my acquaintances, hath gone with mee to see her, that generally concluded, they did thinke God had a great hand in her conuersion, and they have scene many *English* Ladies worse fauored, proportioned and behauored, and as since I haue heard, it pleased both king and queenes Maiestie honourably to esteeme her, accompanied with that honourable Lady the Lady *De la Ware*, and that honourable Lord her husband, and diuers other persons, of good qualities, both publickly at the masks and otherwise, to her great satisfaction and content, which doubtless she would haue deserved, had she liued to arriue in Virginia."

company, and gave for them notes. payable in tobacco. The price of a wife was at first 100 pounds of tobacco; it afterwards rose to 150 pounds

A new form of government was brought over in 1621, and in 1622, 347 of the colonists were massacred by the Indians.

The first negroes were brought into the colony by Dutch traders, 1621. At this time colonial produce was required to be sent to England, landed, and customs paid, before it could be exported to foreign countries.

The charter of the Virginia company was vacated in 1624; and the next year Charles I. made the province immediately dependent on the crown.

All the country south of lat. 36° 30' was taken from Virginia in 1630. and called Carolina. Maryland was taken from it in 1632.

Severe laws were passed for the suppression of dissenters in 1633. The civil privileges of the colony were entirely restored in 1639.

The province, in 1650, submitted to parliament.

In 1659, before the restoration of Charles II. Virginia threw off the government of the protectorate, and reinstated Sir William Berkely, the royal governor. The laws of England were adopted as the provincial laws in 1661. The ancient constitution was restored the next year, and the church of England re-established.

A Dutch squadron arrived on the coast in 1673, and did great injury to the colonists. Two insurrections took place in 1675 but were suppressed. The next year was the era of Bacon's rebellion, which cost the province 100,000*l*.

The seat of government was removed, from Jamestown to Williamsburg, in 1698; and the province divided into parishes in 1712.

In 1732, WASHINGTON was born.

Col. Washington, in 1754, marched with a body of troops to the Ohio against the French and Indians. He surprised and took Fort Du Quesne, (Pittsburg) but was compelled, by a large army, to retire from the fort, and, the next day, to surrender. His troops were allowed the honors of war, and permitted to return home.

In 1755, General Braddock marched against Fort Du Quesne; but in penetrating through the wilderness, he incautiously fell into an ambuscade, and suffered a total defeat. General Braddock was killed but the enemy not pursuing the vanquished across the river, being eager in plundering the baggage of the dead, a part of his troops were saved by flight, under the conduct of General Washington, at that time a colonel, who then began to exhibit proofs of those military talents, by which he afterwards conducted the armies of America to victory, and his country to independence.

This province was forward in resisting the encroachments of the mother country, in 1765 and 1769. In 1774, Virginia proposed a General Congress. The constitution of the state was adopted on the 5th of July, 1776. In 1781, the state was made the

theatre of the war; and, on the 19th of October, in that year, the British army, under lord Cornwallis, surrendered at Yorktown. This interesting event decided the contest in favor of America, and laid the foundation of the peace, the preliminaries of which were agreed on the following year.

In 1785, the act passed, establishing religious freedom, and for the revision of the laws.

Kentucky was erected into a separate district in 1782, and entirely separated from Virginia in 1786. In 1788, the federal constitution was adopted.

Religion.] The first settlers in this country were emigrants from England, of the English church. They retained full possession of the country about a century, when other denominations of Christians began to settle here, and have since increased to a large majority of the inhabitants.

The present denominations of Christians in Virginia are Presbyterians, inhabiting the western parts of the state, who had, in 1818, 41 ordained ministers; Episcopalians, who are the most ancient settlers, and occupy the eastern and first settled parts of the state, who had, in 1817, 34 ministers. The Friends have between 30 and 40 meetings. The Baptists in 1817, numbered 314 congregations. The methodists are numerous. There are also a few Lutherans, Catholics, and Jews. There is a very large portion of the inhabitants, particularly in the lower and middle parts of the state, who make no profession of the Christian religion in any of its forms. There are several whole counties, in which there is not a single house for public worship of any kind; within a few years, however, the state of religion and morals has risen in this state, and prospects are promising.

Government.] The legislature is called the *general assembly*, and is composed of a *senate* and *house of representatives*. The senate consists of 24 members, who are chosen for 4 years, by districts. One fourth of the senate goes out yearly. A senator must be 25 years of age, and a resident and freeholder within the district. The representatives are chosen annually, two from each county, and one from several cities and boroughs each. They must be freeholders and residents in the county.

The governor is chosen annually by joint ballot of both houses, and can hold the office but 3 years in 7. He has a privy council of 8 members, chosen by joint ballot of both houses. The two houses remove 2 of its members every 3 years, and appoint 2 new ones. The council chooses its president, who in case of the death, resignation, or absence of the governor, acts in his stead. The governor and council have the power of pardoning.

Justices of the peace are appointed by the governor and council, and have the power of appointing constables. A county court is established in each county; from which appeals are allowed in cases where the property in dispute exceeds 10*l*. and in all cases where the title of land is in question. The superior courts are, a general court, a high court of chancery, and a court of admiralty. The first have 5 judges and the two last 3. The 2 first are courts of appeals;

the last is a court of original jurisdiction. The first sits 4 times a year at Richmond; twice as a civil and criminal court, and twice as a criminal court only. The second sits twice a year at Richmond; and the last is held at Williamsburg whenever controversy arises. The supreme court consists of the 11 judges of the superior courts, and is a high court of appeals. It sits twice a year at Richmond.

Laws.] In 1661, the laws of England were expressly adopted by an act of the assembly of Virginia, except so far as "a difference of condition" render them inapplicable. To these were added a number of acts of assembly, passed during the monarchy, and ordinances of convention, and acts of assembly since the establishment of the republic. The following variations from the British model are worthy of notice.

Debtors unable to pay their debts, and making faithful delivery of their whole effects, are released from their confinement, and their persons forever discharged from restraint for such previous debts: but any property they may afterwards acquire will be subject to their creditors. The poor, unable to support themselves, are maintained by an assessment on the titheable persons in their parish. A foreigner of any nation, not in open war, becomes naturalized by removing to the state to reside, and taking an oath of fidelity; and thereby acquires every right of a native citizen. Slaves pass by descent and dower as lands do. Slaves as well as lands were entailable during the monarchy; but by an act of the first republican assembly, all donees in tail, present and future, were vested with the absolute dominion of the entailed subject. Gaming debts are made void, and monies actually paid to discharge such debts (if they exceed 40 shillings) may be recovered by the payer within three months, or by any other person afterwards. Tobacco, flour, beef, pork, tar, pitch, and turpentine, must be inspected by persons publicly appointed, before they can be exported.

In 1785, the assembly enacted, that no man should be compelled to support any religious worship, place, or minister whatsoever; nor be enforced, restrained, molested, or burdened, in his body or goods, nor otherwise suffer on account of his religious opinions or belief; but that all men should be free to profess, and by argument to maintain their opinion in matters of religion; and that the same should in no wise diminish, enlarge, or effect their civil capacities.

In October, 1786, an act was passed by the assembly prohibiting the importation of slaves into the commonwealth, on penalty of the forfeiture of the sum of 1000*l.* for every slave. And every slave imported contrary to the true intent and meaning of this act, becomes free.

Population.] The following numbers are the results of calculations or actual enumerations made in the respective years.

1600	490			
1617	400	1671	{ 38,000 whites }	40,000
1618	600	1675	{ 2,000 blacks }	50,000
1623	2,500	1681		14,000 titheables

1640	20,000	1703	{ 25,023 titheables	}	60,606
1660	30,000		{ 35,583 women & children		
1749		85,000			
1763	{ 70,000 whites 100,000 blacks }	170,000	1800	{ 518,674 whites 345,796 slaves 21,679 free bl. }	886,149
1790	{ 442,117 whites 292,627 slaves 12,866 free bl. }	747,610	1810	{ 551,534 whites 392,518 slaves 30,570 free bl. }	

The items of the census of 1810 were as follows :

	males.	females.	total.
Under 16 years of age	140,696	132,922	273,618
Between 16 and 45	104,040	106,062	210,102
45 and upwards	35,302	32,512	67,814
Total	280,038	271,496	551,534

At each of the 3 national enumerations, this state, in point of population, was the first in the union ; but, in 1790, its number of whites was inferior to that of Massachusetts ; and in 1800 and 1810 to those of Pennsylvania, Massachusetts, and New-York. The increase, in the last ten years, of the number of whites, was 31,860 or $6\frac{1}{8}$ per cent. : that of the number of blacks was 55,603 or $15\frac{2}{3}$ per cent. The immense number of mulattoes in the low country explains this otherwise unaccountable disproportion.

Militia.] The militia of this state, consisting of every able bodied freeman between the ages of 18 and 45, is divided into four grand divisions, each of which is commanded by a major general ; 19 brigades, each commanded by a brigadier general ; making in the whole 108 regiments of infantry, four regiments of cavalry, and four regiments of artillery ;* each regiment is composed of two battalions, and commanded by a lieutenant colonel commandant, and two majors. The governor is head of the military, as well as civil power. The number of the militia in 1813, was 75,801, and in 1817, 85,758.

The intersection of Virginia by so many navigable rivers, renders it almost incapable of defence. As the land will not support a great number of people, a force cannot soon be collected to repel a sudden invasion.

The United States have an arsenal on a high rocky point of land, of an indifferent soil, at the confluence of the Shenandoah, and Potomac.

Manners and Customs.] The Virginians are divided into two classes, those below, and those west of the Blue ridge. The former are chiefly descendants of the English ; and are Episcopalians. A great part of the latter are emigrants from the north of Ireland ; and are Presbyterians. The former are chiefly planters, living on separate plantations, and not in villages. They have no large capital, to give tone to the general manners. Labor is carried on almost wholly by slaves ; who, in many of the counties, are much more

* This was the number of regiments some years ago ; the number has doubtless increased since.

numerous than the whites. Great numbers of the white inhabitants are thus exposed to habits of idleness, and to the manifold evils and vices which always accompany it. The general character of the people west of the Blue ridge is that of industry, temperance, and economy. They have few slaves, and support themselves, as in the northern states, by their own labor. The law of 1787, which provides that no man shall be compelled to support any religious worship, place, or minister, and the sequestration, which had previously been made of all the glebe lands in the state, belonging to the Episcopal church, for public use; which removed the visible evidences of Christianity, which had hitherto existed in these glebes, and the deserted and decayed places of worship on them; these two measures have done more to root Christianity out of the lower part of Virginia, than the efforts of a century probably can do to restore it. There are but few places for public worship, of any denomination, in these parts of Virginia, and these are small, and have but few attendants. The religious and moral state of the great body of the inhabitants, must of course be deplorable. The poor have little chance of receiving religious instruction themselves, or of educating their children, and the number of whites, who cannot write or read, is unfortunately great. We have reason to believe, however, that the moral and religious character of this part of Virginia is rising. New churches are building in several places, and a disposition to hear and support religious and moral instruction, is happily increasing. The present Bishop of Virginia is exerting a good influence, which is extensively felt.

Of the ladies in this state, the following account has been given, which we adopt as correct :—" No where do women perform more domestic labor than they do on the west of the Blue ridge; and no where can more admirable domestic economists be found, than among the ladies of *Old Virginia*. Female education is now much more attended to than formerly; and if the ladies of that state cannot boast of learned authors, among themselves, the gentlemen may boast, that they make dutiful daughters, and affectionate wives."* Duelling is here still a prevailing crime among the higher ranks of life; a crime, which, in the greater part of the union has never met with its just recompence. Severe laws, however, have been made against this† and some other disgraceful vices heretofore prevalent, which, in some degree, have checked their pernicious effects.

This state has produced some of the most distinguished characters in the American history; and, far before all others, him, who, in any age or country, would have been one of the first of great and illustrious men. Four of five presidents of the United States, have been citizens of Virginia.

Literature.] There are three colleges in this state, William and Mary, Hampden Sidney, and Washington. The two last owe their

* *Ree's Cyclop. Art. Virginia.*

† A late law we understand, requires that all persons elected to any civil office in the state, previously to his entering on its duties, shall take an oath in some public court, that he has not, since the passing of this law, been concerned directly nor indirectly in any duel: and that he will not be thus concerned in future.

existence to private liberality. William and Mary college, at Williamsburg, was founded by William III. in 1690-1, who gave it nearly 2000*l.* sterling, 20,000 acres of land, and a penny a pound on all tobacco exported from Virginia and Maryland. The assembly gave it a duty on liquors imported, and furs and skins exported. The buildings are of brick, sufficient for the indifferent accommodation of 100 students. By its charter it was to be under the government of 20 visitors, who were to be its legislators, and to have a president and six professors, who were incorporated. It was allowed a representative in the general assembly. Under this charter, professorships of the Greek and Latin languages, of mathematics, moral philosophy, and two of divinity, were established. To these were annexed, for a sixth professorship, a considerable donation by Mr. Boyle of England, for the instruction of the Indians, and their conversion to Christianity. This was called the professorship of Brafferton, from an estate of that name in England, purchased with monies given.

The primary design in establishing this college, is expressed in the preamble of the act of the "Grand Assembly," of Virginia, 1690, as follows: "Whereas, the want of able and faithful ministers in this country deprives us of those great blessings and mercies, that always attend on the service of God, which want, by reason of our great distance from our native country, cannot in all probability be always supplied from thence, Be it enacted," &c.* In passages in the act, similar declarations occur. Hence, it may be remarked that the Virginians are indebted to Christianity for the institutions of learning, which exist among them. A history of the colleges that have been established in the other states, in the union, of those early instituted especially, would afford undeniable evidence of similar obligations. Harvard, Yale, Nassau Hall, Providence, and Dartmouth, whatever may be the present character of their influence, owe their existence to the enlightened piety of our forefathers.† After the American revolution, the visitors, having no power to change the constitution of the college, which were fixed by the charter, and being therefore confined in the number of professorships, undertook to change the objects of the professorships, and of course, as will be perceived, the religious character and design of the college. They excluded the two schools for *divinity*, and that for the Greek and Latin languages, and substituted others; so that in 1787 they stood thus,—A professorship for law and police—anatomy and medicine—natural philosophy and mathematics—moral philosophy, the law of nature and nations, the fine arts—modern languages—for the Brafferton. The great purpose for which the college was established, as expressed in the preamble of the act already recited was entirely abandoned. None of the new professorships were adapted to make "able and faithful ministers." There are now six professorships in this college, of moral philosophy, natural philosophy and the belles lettres; one of mathematics, one of law, one of modern languages, and two of humanity. The philosophical apparatus is complete, and the library extensive.

* See Henning's Statutes at large, Vol. II. 25, 37, and 56.

† Ree's Cyclop. Art. Virginia.

The grammar school annexed to the college, had, some years since, about 50 or 60 boys in it, instructed by two professors, and an usher. The annual expense of their board, washing, and tuition, is about twenty guineas.

Hampden Sidney College, in Prince Edward county, and Washington College, in Lexington, receive a great part of their support from the fees of the students, and derive their reputation from the character and abilities of their officers and instructors, for the time being. They were originally academies, established by Presbyterians; and when incorporated by the legislature for the general purposes of education, a few hundred pounds worth of escheated lands were granted to this Institution, which is all the public patronage it has received. To Washington college, that great and good man, whose name it bears; in 1796, gave 100 shares in the stock of the James river canal, estimated at 6 or 8 thousand pounds currency. Means so scanty and precarious could not furnish to these institutions, the libraries and apparatus, requisite to give a thorough education; men of wealth, have therefore, generally sent their sons to the northern colleges.

There are 18 academies, it may be more, spread over the state, in the principal places, very few of which are established on permanent foundations, or are in a very flourishing state. The sparseness of the population is one reason of this state of things; but the principal one is, that gentlemen of fortune generally prefer to have their children educated at home, by a private tutor.

The *primary* schools in this state, with some exceptions, have hitherto been unwisely managed. In the year 1811, the subject of education at large, was taken up by the legislature, who constituted a board under the title of "the President and Directors of the Literary Fund," having in the preceding year, enacted, that all escheats, confiscations, &c. should be appropriated to the encouragement of learning. The governor, lieutenant governor, treasurer, attorney-general, and president of the court of appeals, constitute this board. This fund has been increasing from year to year, and now nearly amounts to the sum of 1,000,000 dollars; to which a very considerable increase is expected to be shortly made. By a late act of the general assembly, 45,000 dollars, of the annual proceeds of this fund, are appropriated to the education of poor children, in the several counties and corporations within the commonwealth; such proportions of this sum being applied to each county or corporation, as its population bears to the free white population of the state.

In the same *act*, the legislature determined on the establishment of a **UNIVERSITY** in Virginia, appointed commissioners for fixing its site, and for other purposes; and appropriated 50,000 dollars per annum for procuring, erecting buildings, and permanently endowing the university. Thus the state has engaged, it is hoped, in good earnest, in the important work of patronizing learning, and diffusing it through every part, and class of society. These acts are only parts of a grand system; an outline of the whole of which may be exhibited in a few words, *Primary Schools* in wards or townships throughout the state; *Academies*; *Colleges*; a **UNIVERSITY**.

The site of the Central college is to be in Albemarle county. The buildings are to consist of distinct houses, arranged at proper distances on each side of a lawn, in each of which is to be a lecture room, with from two to four apartments for the accommodation of a professor and his family; these pavilions to be united by a range of dormitories sufficient for the accommodation of two students each, in such manner that there shall be a covered passage along the whole range. It is estimated that the pavilions will cost about \$5000 each, and the dormitories \$350; the number to depend on the number of professors and students proposed to be provided for. Besides, there are to be hotels, containing each a refectory and rooms for the tenants employed in dieting the students.

The objects of the primary schools, are to instruct the mass of citizens "in their rights, interests and duties as men and citizens," and are not included in the design of an university which is to form statesmen, legislators and judges, and to promote a higher grade of education, in which it is not expected that the mass of population should directly participate.

The branches of learning, which is to constitute the university education, are grouped together in such a manner, that they may be assigned in such manner, that they may be assigned to ten professors, as follows, viz.—1. *Ancient Languages*,—Latin, Greek, Hebrew. 2. *Modern Languages*,—French, Spanish, Italian, German, Anglo-Saxon. 3. *Pure Mathematics*, Algebra, Fluxions, Geometry, Military and Naval Architecture. 4. *Physico Mathematics*,—Mechanics, Statics, Dynamics, Pneumatics, Acoustics, Optics, Astronomy, Geography. 5. *Physics*, Chemistry, Mineralogy. 6. Botany, Zoology. 7. Anatomy, Medicine. 8. Government, Political Economy, Law of Nature and Nations, History. 9. Municipal Law. 10. Ideology, General Grammar, Ethics, Rhetoric, Belles Lettres and the Fine Arts. It is not proposed to establish any professor of Divinity, and the reason of the omission is the same, which has governed the legislature of that state in refusing to appoint a chaplain, viz. that an appointment cannot be made without giving a preference to some religious sect, and the constitution of the state forbids the showing of such preference.* When this outline will be

* The paragraph on this branch of the subject we copy at length.

"In conformity with the principles of our constitution, which places all sects of religion on an equal footing, with the jealousies of the different sects in guarding that equality from encroachment and surprise, and with the sentiments of the legislature in favor of freedom of religion manifested on former occasions, we have proposed no professor of divinity: and the rather as a proof of the being of a God, the creator, preserver and supreme ruler of the Universe, the author of all the relations of morality and of the laws and obligations these infer, will be within the province of the professor of ethics; to which, adding the developments of these moral obligations, of those in which all sects agree, with a knowledge of the languages, Hebrew, Greek and Latin, a basis will be formed common to all sects. Providing thus far without offence to the constitution, we have thought it proper at this point to leave every sect to provide as they think fittest the means of further instruction in their own peculiar tenets."

The provision made as a substitute for religious and theological instruction is not very abundant, as the professor of Ethics is proposed to be also professor

filled up, and whether this great object will be steadily pursued, and wisely conducted, time alone can determine.* The question concerning the appropriation of this literary fund, has produced a difference of opinion, which perhaps it will not be easy to reconcile.†

Chief Towns.] Virginia is not, like New-England, divided into townships; and there are few towns of considerable size, south of Washington.

RICHMOND, the seat of government for the state, is on the N. side of James river, at the head of the tide, just at the foot of the falls. The houses, about 1400 in number, are built on two hills, the courses of which make right angles with that of the river; and in the valley between them. Most of the houses stand in the valley, on the western hill, and at its foot near the river. Those lately built are of brick, and handsome. A creek runs through the valley, over which is a convenient bridge. Another of boats between 300 and 400 yards in length, is thrown over the James, at the foot of the falls which connects Richmond with Manchester. The public buildings are a state house or capitol, a court house, jail, penitentiary, 3 banks, 8 houses for religious worship, 2 Episcopal, 1 Presbyterian, 2 Methodist, 1 Baptist, a Friends Meeting, and a Jewish Synagogue. It had a theatre, which, in December, 1811, was consumed during an exhibition, and with it the governor of the state, and 70 others, among the most respectable citizens. On the site of this melancholy ruin, an elegant episcopal church has been erected, called the *Monumental Church*. At the W. end of the town are several mills, one of which is not inferior to any in the United States. Near the mills is a distillery and brewery. The falls above the bridge are about 7 miles in length. A noble canal is cut on the N. side of the river, which terminates in a basin of about two acres, in the town of Richmond. From this basin to the wharves in the river, will be a land carriage of about a mile. The opening of this canal promises the addition of much wealth to Richmond. Vessels of burden lie at City Point, 20 miles below, to which the goods from Richmond are sent down in boats. It is 123 miles W. of S. from Washington. N. lat. 37 40, W. lon. 77 50. Population in 1790, 4000; in 1800, 5739; in 1810, 9735, and in 1818, 15,000. This city is in a flourishing state.

NORFOLK is on the E. side of Elizabeth river; which is here from 350 to 400 yards wide, and has 18 feet water up to the town. The harbor is safe, commodious, and large enough to contain 300 ships. It has 3 banks, a court house and jail, and 6 houses for religious worship. It contained, in 1790, 2,959 inhabitants; in 1800, 6,746, and in 1810, 9,183. Lat. 36 55 N. 76 23 W. 112 miles E. S. E. of Richmond. It has more foreign commerce than any other town in the state.

of Ideology, General Grammar, Rhetoric, Belles-lettres, and the Fine Arts. In the act establishing the University, the plan recommended by the commissioners is in general adopted.

* The principal projectors of this plan are said to be the Hon. THOMAS JEFFERSON Esq. and the Hon. JAMES MADISON Esq.

† Rees' Cyclop.

PETERSBURG is on the S. E. bank of the Appomattox, just below the falls. Vessels of 100 tons come up to the town. It has a court house, jail, 2 banks, a flourishing academy, and 5 houses of worship, 2 for Baptists, and for Presbyterians, Episcopalians and Methodists, 1 each. The town is low, and, till the marshes were filled up, was unhealthy. The suburbs of Blandford and Pocahontas, are within the borough; the former was almost wholly destroyed by fire, in March 1819. This place was the residence of the famous Indian princess Pocahontas, from whom descended the Randolph and Bowling families in Virginia. Petersburg has a thrifty back country, and is the emporium of a considerable district of North-Carolina, as well as of the southern part of Virginia. It has exported in a single year to the value of nearly \$1,500,000. It employs about 6,000 tons of shipping. Population in 1810, 5668. Lat. 37 14 N. lon. 78 8 W. 25 miles S. of Richmond.

WILLIAMSBURGH is situated between two creeks, branches of James and York rivers. The distance of each landing place is about a mile from the town. The streets cross each other at right angles, and there is a handsome square of about 10 acres in the centre of the town. Through this runs the principal street, from E. to W. about a mile in length, and 100 feet wide. The public buildings are an Episcopal church, a college, capitol, court house, jail, and hospital for lunatics. Population in 1810, including James city, 4094; of these about 1500 are in Williamsburg. Lat. 37 16 N. lon. 76 48 W. 60 miles E. of Richmond.

Mount Vernon, once the celebrated seat of the beloved and celebrated **WASHINGTON**, is pleasantly situated on the Virginia bank of the river Potomac, where it is nearly two miles wide, and is about 280 miles from the sea, and 127 from Point Look Out, at the mouth of the river. It is nine miles below Alexandria. The area of the mount is 200 feet above the surface of the river; and after furnishing a lawn of five acres in front, and about the same in rear of the buildings, falls off rather abruptly on those two quarters. On the north end it subsides gradually into extensive pasture grounds; while on the south it slopes more steeply, in a shorter distance, and terminates with the coach house, stables, vineyard, and nurseries. On either wing is a thick grove of different flowering forest trees. Parallel with them, on the land side, are two spacious gardens, into which one is led by two serpentine gravel walks, planted with weeping willows and shady shrubs. The mansion house itself appears venerable and convenient. A lofty portico, 96 feet in length, supported by eight pillars, has a pleasing effect when viewed from the water; the whole assemblage of the greenhouse, school house, offices, and servant's halls, when seen from the land side, bears a resemblance to a rural village. Such was the appearance of Mount Vernon in 1786, when visited by the writer of this article. On the opposite side of a small creek to the northward, an extensive plain, exhibiting cornfields and cattle grazing, affords in summer a luxuriant landscape; while the blended verdure of woodland and cultivated declivities, on the Maryland shore, variegates the prospect in a charming manner. This great man died, at this seat, Dec. 14,

1799, and left his country in tears. His remains lie entombed near the mansion house.

YORKTOWN, 13 miles eastward from Williamsburg, and 14 from Monday's point at the mouth of the river, is a place of about 100 houses, situated on the south side of York river, and contains about 700 inhabitants. It has a fine harbor. It is rendered famous as the place of the capture of lord Cornwallis and his army, on the 19th of October, 1781, by the united forces of France and America.

LEXINGTON stands on the post road, one mile west of the north branch of James river, 209 W. of Richmond. It is the county town of Rockbridge, is a flourishing place, and has an elegant brick meeting house for Presbyterians, a court house, and jail. 2 college edifices, for Washington College, an academy, and about 120 dwelling houses. The federal courts for the western district are held here. The river is navigable to this place for boats of 3 or 6 tons.

In Albemarle county is **MONTICELLO**, the seat of the late president **JEFFERSON**. The summit of the mount, where his house stands, is 500 feet above the circumjacent country. The prospect is extensive and charming. Mr. Jefferson has more than 1100 acres of cultivated land. In 1797, he had 320 acres of wheat, 160 of corn, 320 of clover, 320 of peas and potatoes, and 120 workmen. He has a manufactory of nails: his negro boys make a ton of nails in a month.

FREDERICKSBURG, in the county of Spotsylvania, is situated on the south side of Rappahannoc river, 110 miles from its mouth; 58 N. of Richmond, and contains about 500 houses principally on one street, which runs nearly parallel with the river, and about 4000 inhabitants. It has a court house and jail, 2 banks, and houses of worship for Episcopalians, Presbyterians, Methodists and Baptists, 1 for each. Vessels of 130 tons come to this town, whose annual exports amount to about \$4,000,000, consisting chiefly of flour and tobacco.

Roads and Canals.] Roads and bridges in this state, and in the states S. of the Potomac, have been hitherto neglected, to a degree that has rendered travelling tedious and dangerous. The main post road is very defective; the inconvenience and danger arising from the want of bridges on it are sensibly felt. There is a turnpike from Manchester, opposite Richmond, westward 12 miles, to the coal mines of Falling creek, gravelled, 36 feet wide, cost \$50,000. Another from Richmond to Ross's coal mine; and another from Alexandria northwestward to Middleburg.

A "Board of public works" has been constituted by the legislature, who have a fund, yielding, (1819) an income of \$126,441 49. The design of this fund is to promote every species of internal improvements. The legislature, in 1819, granted about 300,000 dollars, to aid in making internal improvements, to subscribe to turnpike stocks. &c. and have incorporated several canal navigation, and turnpike corporations.

A part of the Chesapeake and Albermarle canal is in this state. There are several canals on James river. That at Richmond is now completed. Four canals have been opened on the Potomac. These have already been described.*

The Shenandoah, in the last 8 miles of its course, falls 80 feet. Six different canals, 20 feet wide, $4\frac{1}{2}$ deep, and extending altogether 2400 yards, have been opened around the most difficult falls, and rendered the river passable. The distance on the Appomattox, from the upper end of the falls to tide water at Petersburg, is 5 miles; and the descent upwards of 30 feet. The canal is 16 feet wide, and 3 deep, and admits boats of 6 tons. The capital amounts to upwards of \$60,000. See Richmond.

Naval Depots.] The navy commissioners have combined in the establishment of a grand naval depot for the southern section of the Union, two distinct sites:—Gosport as a fitting, repairing and docking yard, and Burrill's bay as the building yard. The latter place is in the county of Isle-of-Wight, on the south side of James river, 5 or 6 miles below James town, and about 30 miles from Norfolk; it heads the long bar which extends from the Warwick shore, familiarly called the *Point of Shoal*, around which the channel of the river winds its course. From the bay to Hampton Roads is almost a strait course, and the depth of water is sufficient for ships of the largest draught. At every point where it may be necessary to erect works of defence, nature has provided a foundation of solid rock; and the entrance may be so fortified as to render it impassable to an enemy. No public work will be commenced there until after the next session of congress, (Dec. 1819,) when the report of the commissioners shall have been acted upon by that body.

Manufactures.] Before the war, the inhabitants of this state paid but little attention to the manufacture of their own clothing. They used to import as much as *seven eighths* of their own clothing; they now are supposed to manufacture *three quarters* of it. Considerable quantities of iron are manufactured in different parts of this state. Northwest of the Blue Ridge are numerous manufactories of cast and wrought iron. To these, we may add the manufacture of lead; besides which, they have few others of consequence. The people are much attached to agriculture, and prefer foreign manufactures.

A manufacture of small arms has been established at Richmond by the state, on an extensive scale. It is supplied with iron, coal, &c. by water. The materials are landed at the doors of the buildings, which stand on the margin of the canal, whence the works derive an inexhaustible supply of water, by means of which the greater part of the labor is performed.

The armory at Richmond, furnishes annually upwards of 4000 stands of arms, beside 300 rifles, and 1000 cavalry swords and pistols. The amount of the manufactures of this state, according to the returns of the marshal in 1810, was \$15,263,473 73.

Commerce and Revenue.] The exports from Virginia in 1804, amounted to \$5,790,001; and in 1810, to \$4,822,611, of which \$4,632,829 were of domestic produce, and \$189,782 of foreign. Tobacco is the capital article of export, and next to that is wheat flour. Pork, maize, lumber, tar pitch, turpentine, coal, and furs are the other chief articles. The aggregate tonnage of this state for the year 1805, was 71 488 tons. 1816, 70,361.

The exports from this state, before the revolution, *communibus annis*, was estimated by Mr. Jefferson, in his Notes, at about \$2,900,000. In 1758, the state exported 70,000 hogsheads of tobacco, which was the greatest quantity ever produced in the state in a single year. The exports amount in value to about \$8,000,000. The shipping, compared with that of some of the other states, is very inconsiderable. The produce of southern plantations, is carried to market in northern vessels.

The *revenue* amounts commonly to about \$600,000, and is raised principally by a tax on lands and slaves.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE, FACE OF THE COUNTRY, SOIL AND AGRICULTURE, RIVERS, SWAMP, MOUNTAINS, BOTANY, ZOOLOGY, MINERALOGY, MINERAL WATERS, NATURAL CURIOSITIES.

Climate.] The temperature of the seacoast is warmer than that of the interior, and the warmth decreases gradually to the summit of the Allegany. The mean heat of 5 years (1772—1776) was $60\frac{1}{4}^{\circ}$ of Fahrenheit. The greatest average heat of any one day, during that time was $82\frac{1}{2}^{\circ}$; and the least $38\frac{1}{2}^{\circ}$. The extremes of temperature were 98° above, and 6° below 0 of Fahrenheit. Sudden changes of temperature are common. The mercury has been known to descend from 92° to 47° in 13 hours. The S. W. wind is the most common on the coast in all seasons. The N. wind is the next most prevalent on the coast, and after that the N. E. the E. and the N. W. The S. wind blows less frequently on the coast than winds from any of the 8 points. In the interior the N. W. wind is the most prevalent at all seasons, and next to that the S. W. The N. E. wind is damp, heavy, chilling, and oppressive to the spirits. The N. W. is dry, cool, elastic, and animating. E. and S. E. breezes come on generally in the afternoon. Formerly they did not penetrate beyond Williamsburg; now they are frequent at Richmond, and sometimes reach the mountains.

The average annual fall of rain during the period already mentioned, at Williamsburg, was 47.038 inches; of which 9.153 inches fell in August, more than double the quantity of any other

month. In February, the rain was least plenteous. The descent, in the summer, was 18.4 inches; in autumn, 11.01; in winter, 8.118; and in spring, 10.5. In summer and September, it was 23.16, almost as much as during the other 8 months. Though the quantity of rain is greater here than in the middle parts of Europe, yet the number of clear days is nearly double. Snows are not frequent, and rarely lie more than two or three days, below the mountains.

June is the healthiest month. The weather is then dry and but little liable to change. July, August, and September are the proper rainy season, and are the most unhealthy. In October and November the weather is pleasant and serene.

Face of the Country.] In Virginia, as in all the middle and southern states, the great rivers, except the Hudson, the Apalachicola and the Mobile, run nearly at right angles with the course of the mountains; while their upper branches run between them and parallel with them. The first ridge of mountains in this state, is generally about 150 miles from the sea. Beyond that, quite to the western boundary of the state, the country is mountainous; the ridges of the Allegany occupying a greater breadth of country in Virginia, than in any other state. Between the various ridges, however, there are long vallies parallel with them, often of considerable breadth, and containing some of the best and most pleasant land in Virginia. Below the mountains, the country is a succession of hills and vallies as far as the lowest falls of the rivers. These, in the Potomac, are 3 miles above the city of Washington; in the Rappahannock at Fredericksburg; in the James at Richmond; in the Appomattox a little above Petersburg, and in the Roanoke about 10 miles above Halifax in North-Carolina. The width of the tract below these falls in a straight line varies from 110 to 130 miles. This tract is called the Low country, and is chiefly a sandy plain, covered with the long leaved or pitch pine. From various appearances, it seems to have been once washed by the sea. The land between York and James rivers is very level, and its surface about 40 feet above high water mark. It appears from observation, to have risen to its present height at different periods far distant from each other, and that at these periods to have been washed by the sea; for near Yorktown, where the banks are perpendicular, you first see a *stratum*, intermixed with small shells, resembling a mixture of clay and sand, about 5 feet thick; on this lie, horizontally, small white shells, cockle, clam, &c. an inch thick; then a body of earth similar to that first mentioned, 18 inches thick; then a layer of shells and another body of earth; on this a layer of three feet of white shells mixed with sand, on which lie a body of oyster shells 6 feet thick, which were covered with earth to the surface. The oyster shells are so united, by a very strong cement, that they fall, only when undermined, and then in large bodies from 1 to 20 tons weight. They have the appearance of large rocks on the shore.*

* Gen. Lincoln.

These appearances continue in a greater or less degree in the banks of James river, 100 miles from the sea ; the appearances then vary, and the banks are filled with sharks' teeth, bones of large and small fish petrified, and many other petrifications, some resembling the bones of land and other animals, others, vegetable substances. These appearances are not confined to the river banks, but are seen in various places in gullies at considerable distances from the rivers.

In one part of the state for 70 miles in length, by sinking a well, you apparently come to the bottom of what was formerly a water course. And even as high up as Botetourt county, among the Alleghany mountains, there is a tract of land, judged to be 40,000 acres, surrounded on every side by mountains, which is entirely covered with oyster and cockle shells, and from some gullies, they appear to be of considerable depth. A plantation at Day's point, on James river, of as many as 1000 acres, appears at a distance as if covered with snow, but on examination the white appearance is found to arise from a bed of clam shells, which by repeated ploughing have become fine and mixed with earth.

Soil and Agriculture.] The soil in the tide-water country is generally poor. Its chief productions are maize, oats, and peas. Wheat is raised in some parts of it, a little rice also in the southern swamps. Between tide-water and the mountains the land is principally good. This is the tobacco country. Great quantities of wheat are also raised here. This grain has been almost wholly substituted for tobacco in the northern upland counties, and sufficient cotton is raised for home consumption in those S. of James river. The southeastern counties produce cider and cider brandy in large quantities ; and those on the eastern shore abundance of peach brandy. Among the mountains the farmers raise large numbers of cattle and hogs ; and westward of them, hemp is becoming the staple production. Maize is cultivated throughout the state.

Rivers.] The Ohio is the N. W. boundary for many miles ; and the Potomac the N. E. through its whole length. James river runs wholly in this state ; the Roanoke partly in Virginia, and partly in North-Carolina ; the Monongahela and Great Kanhawa chiefly in Virginia. The Youhiogany barely rises here. All these have been described.*

The Rappahannoc rises in the Blue Ridge, and pursues a S. E. course of 200 miles to the Chesapeake, emptying between Windmill and Stingray points. It has 4 fathoms water to Hobb's Hole, and 2 from thence to Fredericksburg, 110 miles from its mouth. The ravine of the river, at the falls just above Fredericksburg, is on both sides, so abrupt, rocky, and irregular, that a canal around them would be attended with immense expense.

York river rises in the easternmost ridge, which is here called the South mountain. It is formed by the Pamunkey and Mattapony, which unite at Delaware. The Pamunkey, the southern and largest branch, is composed of the N. and S. Anna. The course of the York is S. E. to Yorktown, and thence N. E. 11 miles to the Chesa-

* Pages 249, 250.

peake, into which it falls at Toes point. At Yorktown it affords the best harbor in the state for vessels of the largest size. It holds at high tide, 4 fathoms water, thence 25 miles to the mouth of the Potomack, where it is $1\frac{1}{2}$ mile wide, and the channel only 75 fathoms. Thence to the Mattaponi it has 3 fathoms; and the same as far up the Pamunkey as Cumberland; whence it is navigable for loaded flats to Brockman's bridge, 50 miles above Hanover. The Mattaponi has 3 fathoms to within 2 miles of Fraser's ferry, and thence $2\frac{1}{2}$ for 5 miles. It is capable of navigation for loaded flats 70 miles above its mouth. The whole length of the York is about 180 miles.

The Piankatank runs S. E. about 40 miles between Rappahannock and York river, and receives small craft 8 miles.

The Shenandoah, after a N. E. course of 250 miles along the western skirts of the Blue Ridge, unites its waters with the Potomac at Harper's Ferry, just above its passage through the mountains. From Port Republic to within 8 miles of Harper's ferry, a distance of near 200 miles, the Shenandoah is naturally navigable. The canals near its mouth have been described.

The Rivanna, a northern branch of the James, runs S. E. 40 miles, and empties near Columbia. It is navigable from the South mountain to its mouth, 22 miles.

The Chickahominy, a lower branch on the same side, runs 60 miles in the same direction. A bar at its mouth has only 12 feet water. Vessels of that draught ascend the river 8 miles; those of 10 feet 12 miles; and those of 6 tons burthen 32 miles.

The Appomattox, the chief southern branch of the James, runs N. E. S. E. and E. about 120 miles. Vessels of 15 feet draught go up to Broadways, and those of 4 feet to Petersburg. Above the falls, which are now canalled, and which are 5 miles from Petersburg, it has been rendered navigable for boats to Farmville, 80 miles above Petersburg.

Blackwater, Nottaway, and Meherrin rivers form the Chowan. They run chiefly in Virginia.

The Great Kanhawa is a river of considerable note for the fertility of its lands, and still more, as leading towards the head waters of James river. Its head waters interlock with those of Holston and Roanoke, and for a considerable distance from its source it is called New river. It is doubtful whether its great and numerous rapids will admit a navigation, but an expense to which it will require ages to render its inhabitants equal. The great obstacles begin at what are called the Great falls, 90 miles above the mouth, below which are only five or six rapids, and these passable with some difficulty even at low water. From the falls to the mouth of Greenbrier is 100 miles, and thence to the lead mines 120. It is 280 yards wide at its mouth. The principal branches of the Great Kanhawa, as you ascend it, are Louisa or Coal river, from the west—Elk, 60 miles from its mouth—Gauley river, more than 100—Greenbrier, nearly 200. The three latter from the east.

The Little Kanhawa is 150 yards wide at the mouth. It affords a navigation of ten miles only. Perhaps its northern branch, called

Junius creek, which interlocks with the western waters of Monongahela, may one day admit a shorter passage from the latter into the Ohio.

Big Sandy river heads very near Cumberland river in Cumberland mountains. It runs N. about 100 miles, and falls into the Ohio opposite Gallipolis where it is 60 yards wide. It is the boundary of Virginia and Kentucky, and is navigable 60 miles for loaded bateaux.

The **Guiandot** runs N. N. W. 80 miles, and may be navigated by canoes 50.

Several of the head waters of the Tennessee are found in this state. *Swamp.*] A considerable part of Dismal swamp lies in Virginia.

Mountains.] The mountains of this state are all in ridges, running in a N. E. direction. These are all parts of the **Alleghany** or **Apalachian** mountains. The first ridge is properly called the **South mountain**; though its different parts as divided by the great rivers, have received various names. This ridge gives rise to the **Appomattox** and the **York**; and is broken by the two branches of the **Roanoke**, by the **James**, the **Rivanna**, the **Rappahannoc**, and the **Potomac**. Next to this is the **Blue ridge** which is parallel with it, and lies about 30 miles farther west. Its highest summits are the peaks of **Otter**, about 20 miles from **James river**, which are thought to be 4000 feet high, and are the most elevated land in the state. Near the southern line of the state, it bends westward, and unites with the **Alleghany** ridge. It gives rise to the **Rivanna**, and the **Rappahannoc**; and is broken by the **Staunton**, the **James**, and the **Potomac**. Between the **Blue ridge** and the **Alleghany** are the **Short Hill**, the **House** or **North mountains**, the **Panther Gap**, and the **Warm Spring** or **Jackson's mountains**. They are generally low, are broken by the **James** and **Potomac**, and all unite with the **Alleghany** ridge. This last is the spine of the country, is broken by no river but the **Susquehannah**, and is generally about 3000 feet high. Its course is nearly N. in Virginia, as far as the angles of the **James** and **Kanhawa**; and afterwards about N. N. E. The **Dan**, the **Staunton**, the **James**, and the **Potomac**, flow from it eastward; and the **Youhigany**, the **Cheat**, and the **Greenbriar**, westward. Its distance from the coast in this state is from 230 to 260 miles: and from the **Blue ridge** in the N. about 60. Between the **Alleghany** ridge and the **Ohio** are several ranges, irregular in their course, and less accurately described than those farther east. The longest and most connected of these is the **Laurel ridge**; which, in consequence of its windings, runs a greater distance in Virginia than any of the rest. It gives rise to the **Monongahela**, and is broken by the **Kanhawa**. The **Cumberland mountains** are the boundary between Virginia and Kentucky for about 80 miles. Their course is N. E. and they run nearly parallel with the **Laurel ridge**, through the state.

Botany] The trees, shrubs, and plants of Virginia are arranged by Mr. Jefferson under 4 classes; 1. Medicinal; 2. Esculent; 3. Ornamental, and 4. Useful for fabrication.*

* See Notes on Virginia.

Tobacco, maize, round potatoes, pumpkins, cymplings or cucumbers, and squashes, were found here by the first settlers.

Of cultivated fruits the *gardens* yield muskmelons, watermelons, tomatas, okra, pomegranates, figs, and the esculent plants of Europe; and the *orchards* apples, pears, cherries, quinces, peaches, nectarines, apricots, almonds, and plums.

Zoology.] We have seen no list of the wild animals of Virginia. Great attention has here been paid to the breed of horses. This is the only good effect of horse racing; an amusement very common in this state, and fraught with incalculable evil to the morals of the community.

Mineralogy.] A single lump of *gold* ore has been found near the falls of the Rappahannoc, which yielded 17 dwt. of extraordinary ductility. Terry's gold mine in Buckingham county it is thought will be one of the richest gold mines in the world. There has been no search yet made by digging. The gold is found both pure and mixed on the surface of the ground. There are valuable *lead* mines on the Kanhawa, opposite the mouth of Cripple creek, and 25 miles from the North-Carolina boundary. The proportion is from 50 to 80 pounds of pure metal to 100 pounds of washed ore. The most common is 60 pounds to the 100 pounds. The ore is very abundant. A *copper* mine was opened in Amherst county, on the W. side of James river, and another in Bedford county on the opposite side. They are not now wrought. Twelve *iron* mines are now open; four are on James river, and two in the northern part of the state in the valley west of the Blue ridge. *Black lead* abounds in Winterham, in the county of Amelia. The country, on both sides James river, from 15 to 20 miles above Richmond, and for several miles north and south, abounds in mineral coal of an excellent quality. The pits which have been opened lie 150 or 200 feet above the bed of the river, and are little incommoded by water. It is very abundant, also, W. of the mountains. One *emerald* has been found here; *amethysts* are frequent, and *rock crystal* common. Good *marble* abounds on the N. side of the James river, at the mouth of the Rockfish; some entirely white, but generally variegated with red, blue, and purple. This marble is part of a vein of limestone, which commences in Prince William county, and running S. W. crosses the Rivanna, 5 miles below the South mountain, and thence proceeds to the mouth of the Rockfish. It is no where more than 100 yards wide. A quarry of exceedingly beautiful marble has been recently discovered on the bank of the Potomac, about 35 miles up the river from Washington. The marble used in the new public buildings at Washington, is from this quarry. At Aquia, on the Potomac, are extensive quarries of free stone, of which the capitol, and president's house at Washington, were built. Limestone is found every where W. of the Blue Ridge.

Mineral Waters.] There are two springs near Bath, between Jackson's river and mountains. The warm spring issues with a bold stream sufficient to turn a mill, and to keep the water of its basin, which is 30 feet in diameter, at the temperature of 96°. The waters relieve rheumatisms and are strongly impregnated with sul-

phur. The hot spring, 6 miles from the warm, is much smaller. Its temperature is 112° . The waters have the same properties with the other in a stronger degree. They are most effectual in summer, and are chiefly visited in July and August.

The sweet springs are at the eastern foot of the Allegany, in Botetourt county, and 42 from the warm spring. The water has a temperature of 70° and is highly impregnated with carbonic acid.

The white sulphur springs of Greenbriar, are very efficacious in removing visceral obstructions.

Salt springs have been found in Greenbriar. By digging, plenty of very strong salt water is found. Near Kanhawa court house there is a salt spring, from which considerable salt has been made.

Natural Curiosities.] On the bank of Elk river, 7 miles from its mouth, and 67 above that of the Kanhawa, there is a hole in the earth, of the capacity of 30 or 40 gallons. From its mouth issues a strong current of bituminous vapor. If a lighted torch is held within 18 inches of the hole, the vapor takes fire, and a column of flame rises 4 or 5 feet high, and 18 inches in diameter. The flame is unsteady, has the density of burning spirits, and smells like pit coal. It sometimes goes out in 20 minutes, and at others lasts 3 days. There is a similar hole on Sandy river. The flame rises from it in a column 3 feet high, and of 12 inches diameter.

The mention of uncommon springs leads to that of syphon fountains. There is one of these near the intersection of lord Fairfax's boundary with the North mountain, not far from Brock's Gap, on the stream of which is a grist mill, which grinds two bushels of grain at every flood of the spring. Another near the Cowpasture river, a mile and a half below its confluence with the Bullpasture river, and 16 or 17 miles from the hot springs, which intermits once in every 12 hours. One also near the mouth of the North Holston.

After these may be mentioned the natural well, on the lands of a Mr. Lewis, in Frederick county; it is somewhat larger than a common well; the water rises in it as near the surface of the earth as in the neighboring artificial wells, and is of a depth as yet unknown. It is said there is a current in it tending sensibly downwards. If this be true, it probably feeds some fountain, of which it is the natural reservoir, distinguished from others, like that of Madison's cave, by being accessible. It is used with a bucket and windlass, as an ordinary well.

Madison's cave lies W. of the blue ridge, near the intersection of the Rockingham and Augusta line with the S. fork of the southern branch of the Shenandoah. It is in a hill about 200 feet high, the side of which towards the river is nearly perpendicular. The entrance, is on this side, about two thirds of the way up. The cave extends into the earth about 300 feet, branching into subordinate caverns sometimes ascending, but generally descending. It terminates in two places at basins of water of unknown extent, which are nearly on a level with the river. The roof is of solid limestone

from 20 to 50 feet high ; and, with the sides, is covered with incrustations of carbonat of lime. Stalactites also depend from the roof, and stalagmites rise in various places from the floor. Some of these have met, and formed solid pillars of white carbonat of lime.

There is a cave in Frederick county, near the North mountain. The entrance is on the top of an extensive ridge, and is a descent of 30 or 40 feet as into a well. At the bottom of this, the cave extends nearly horizontally about 400 feet, with a breadth of from 20 to 50, and a height of from 5 to 12.

The *Blowing cave* is in the Panther Gap ridge, between Cow and Calpasture rivers, tributaries of the James. It is in the side of a hill, is about 100 feet in diameter, and emits constantly a current of air of sufficient force to keep the weeds prostrate to the distance of 20 yards. This current of air is strongest in dry frosty weather, and weakest in long seasons of rain. There is another cave of this kind in Cumberland mountain, a mile from the Tennessee line.

In the county of Monroe, near Kanhawa, there is a remarkable subterranean passage, extending upwards of 2 miles entirely through the base of a high mountain. The earth on the bottom of the cave is strongly impregnated with nitre.

The passage of the Potomac, immediately after its junction with the Shenandoah, through the Blue ridge, at Harper's ferry, is a singular and highly interesting spectacle. The river here descends 15 feet, and rolls between its walls of rock, with the wildness and rapidity of a cataract. The mountains on each side are nearly perpendicular, and appear to have been separated by some great convulsion of nature.

There is a natural bridge in Rockbridge county, over Cedar creek, a branch of the James, which here flows in a narrow, deep ravine, between two hills of rock. The bridge is an immense arched rock of limestone, 40 or 50 feet thick, thrown across the top. The bases of its abutments are from 48 to 70 feet apart, the mean distance being about 60. One of the abutments is nearly perpendicular ; the other falls back, so that the top of the arch is from 80 to 90 feet wide. The height of the bridge is 210 feet from the water. In the middle, it is 65 feet in breadth, but much wider at the ends. The rocks which form the ravine are irregular and craggy, extending of the same height several hundred yards, both above and below the bridge. The ravine itself is crooked, winding like an ill formed S.

In the county of Scott, in the S. W. corner of the state, there is a similar bridge over Stock creek, 3 miles above its entrance into Clinch river, and a few miles from the Tennessee line. The ravine, at the bottom of which the creek flows, is walled on both sides with solid rock ; and, at the bottom, is from 35 to 55 feet wide, but much broader at the top. The bridge extends from the entrance 406 feet in a straight line ; thence at right angles 300 feet, when it is within 80 feet of the other side of the ravine ; and thence, at a very acute angle, 340 feet farther ; making a total length of 1046 feet. The perpendicular height of the bridge above the water is

339 feet. It fronts to the S. W. and its summit on that side projects 87 feet beyond the base. The bottom of the bridge is regularly arched. The creek heads nearly 4 miles above the bridge, and is sometimes swelled by rains so as to rise 15 or 18 feet perpendicularly.

Amen's cave, 16 miles from Staunton, is divided into several large apartments, in which are curious petrifications, or crystallizations, in the form of images and statues, from the dwarf up to the giant, who stand with out stretched arms in a threatening attitude. One of the large apartments in this cave is called *Washington's room*, in which is a fine statue, which bears the name of *WASHINGTON. Thus, it seems, the genii of this cave have done that for this hero and statesman, which the legislators of his native country have refused!!*

NORTH-CAROLINA.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT, BOUNDARIES, DIVISIONS AND POPULATION, NAMES, ORIGINAL POPULATION, HISTORY, RELIGION, GOVERNMENT, POPULATION, MILITIA, MANNERS AND CUSTOMS, LITERATURE, MEDICAL SOCIETY, CITIES AND TOWNS, ROADS, CANALS, MANUFACTURES, COMMERCE.

Extent.] THIS state is situated between 33 50 and 36 30 N.; and between 75 45 and 84° W. Its length in lat. 35 7, is 430 miles. The greatest breadth is 180. In the west, it terminates in a point. The eastern part is much the broadest, and the whole extent of the coast is not less than 300 miles. The number of square miles is 48,000, of which in 1798, about 21,000,000 acres were cultivated, estimated at \$28,000,000.

Boundaries.] On the N. by Virginia; on the E. and S E. by the Atlantic; on the S. W. and S. by South-Carolina; and on the W. and N. W. by Tennessee.

Divisions and Population.] This state is divided into 62 counties; each county is subdivided into towns.

Counties.	No. inhabitants in 1810.	Chief towns
Moore	6,367	Alfordstown
Haywood	2,780	Court House

* Wilson's letter to General Pinckney, accompanied with curious specimens of these petrifications.

Counties.	No. inhabitants in 1810.	Chief towns.
Beaufort	7,203	Washington
Cabarras	6,158	Concord
Gates	5,965	Court House
Surry	10,366	Salem
Franklin	10,166	Lewisburg
Washington	3,464	Plymouth
Currituck	6,985	Indiantown
Green	4,867	Court House
Granville	15,576	Williamsborough
Buncombe	9,277	Ashville
Randolph	10,112	Court House
Montgomery	8,430	Henderson
Burke	11,007	* <i>Morgantown</i>
Edgecombe	12,423	Tarborough
Bertie	11,218	Windsor
Warren	11,004	Warrenton
Columbus	3,022	Whitesville
Rutherford	13,202	Rutherfordton
Duplin	7,863	Sarecto
Rockingham	10,316	Danbury
Robeson	7,528	Lumberton
Martin	5,987	Williamston
Craven	12,676	<i>Newbern</i>
Brunswick	4,778	Brunswick
Camden	5,347	Jonesborough
Pitt	9,169	Greensville
New-Hanover	11,465	<i>Wilmington</i>
Sampson	6,620	Court House
Carteret	4,823	Beaufort
Jones	4,968	Trenton
Tyrrel	3,364	Elizabethtown
Perquimans	6,052	Hartford
Richmond	6,695	Rockingham
Halifax	15,620	<i>Halifax</i>
Chatham	12,997	Pittsborough
Bladen	5,671	Elizabethtown
Wake	17,086	† <i>RALEIGH</i>
Stokes	11,645	Salem
Pasquotank	7,674	Nixonton
Cumberland	9,382	<i>Fayetteville</i>
Northampton	13,082	Court House
Wilks	9,054	Court House
Ash	3,694	
Lenoir	5,572	Kingston
Wayne	8,687	Waynesborough
Iredel	10,972	Hatesville

* The towns, whose names are in *Italico*, are the places where the superior courts of law and equity are held.

† The seat of government.

Counties.	No. inhabitants in 1810.	Chief towns.
Guilford	11,420	Martinsville
Anson	8,831	Wadesborough
Onslow	6,669	Swansborough
Caswell	11,757	Leasburg
Person	6,642	Roxborough
Nash	7,268	Court House
Orange	20,135	Hillsborough
Johnson	6,867	Smithfield
Chowan	5,297	Edenton
Rowan	21,543	Salisbury
Hertford	6,052	Winton
Hyde	6,029	Germantown
Lincoln	16,359	Lincolnton
Mecklenburg	14,272	Charlotteville

Total 555,500

This state is entitled to send 13 representatives to congress; and in numbers is the 5th state in the union.

Names.] This state was first a part of the *Florida* of the Spaniards and French, and of the *Virginia* of the English. It was next included in the patent of *South-Virginia*; then in that of *Carolana*; and afterwards in that of *Carolina*. In 1729, it received the name of *North-Carolina*, in consequence of its being made a distinct province.

Original Population.] In 1700, there were 13 tribes of Indians in this province,* viz.

	Towns.	Gun men.	Geographical situation.
1 Tuscarora	15	1200	Bertie county
2 Waccon	2	120	Halifax on the Roanoke
3 Machapomga	1	30	Hyde county
4 Bear River	1	50	
5 Meherrin	1	50	Meherrin river
6 Chowan	1	15	Chowan county
7 Pasquotank	1	10	Pasquotank county
8 Poteskoit(Currituck)	1	30	Currituck county
9 Hatteras	1	16	Hatteras banks
10 Connamox	2	25	
11 Neus	2	15	On the Neus river
12 Pamlico	1	15	Pamlico sound
13 Janpim	1	6	Yanpim river

1582

The whole number of souls in these tribes, Lawson reckoned to be about 4000. Five other tribes came to North-Carolina about this time, containing 750 souls.

Of all these tribes there are now remaining in North-Carolina a few of the Tuscaroras only, who live in Bertie county, amounting, in 1790, only to about 60 souls.

* Lawson's Hist. N. Carolina, Lond. 1709.

History.] North-Carolina was early discovered, and the first English colony ever planted in America was sent out by Sir Walter Raleigh, and settled on the island of Roanoke, in Pamlico sound, in 1585. The next year the colony returned to England.

Several attempts to settle a colony were subsequently made, and failed. Some settlements were made on Albemarle sound, about 1621. A colony from New-England settled on Old town creek, in 1660, but deserted their habitations in the autumn of 1663. Two years after, they were occupied by a colony from Barbadoes. Settlements were made in this vicinity in 1662.*

In 1663, his Majesty granted to earl Clarendon, and 7 others, all lands between the Atlantic and Pacific oceans, and latitudes 31 and 36 N. and in 1665, the grant was enlarged, embracing all lands between the aforesaid oceans, and latitudes 29 and 36, 30, N.*

In 1663, the earl of Clarendon and the other proprietors offered very generous terms to all who should emigrate to Carolina. A constitution was granted by the proprietors in 1667.

In 1669, the first assembly was constituted and convened at Albemarle. The first assembly for the whole province met at Charles-town in 1674.

An insurrection broke out at Albemarle, in 1677, and for two years the people exercised all the rights of an independent state.

Charles II sent over a company of foreign Protestants, in 1679, for the purpose of raising oil, wine, silk, and other productions of the south.

The country was divided into 3 counties, in 1682, 2 of which were in North-Carolina, and 1 in South. The form of government devised by Mr. Locke for Carolina, was finally abrogated in 1693; and a government agreeable to the charter was established. The rice plant was introduced two years after.

The Corees, Tuscaroras, and other tribes attempted to exterminate the colonists in North-Carolina, in 1712, but were defeated. The legislature, in 1715, divided the country into parishes.

The crown purchased the whole of Carolina of the proprietors, in 1729, for 17,500*l.* sterling; and the king immediately divided it into two provinces.

In 1769, this province resisted the oppressions of the ministry. Two years afterwards, about 1500 of the inhabitants, assuming the name of *regulators*, rose in rebellion. Gov. Tryon fought and defeated them; 300 were killed in the battle, and, of those taken, 12 were condemned for high treason, and 6 executed.

The royal troops were defeated at Moore's Creek Bridge, in 1776; and the Americans, at Briar Creek, in 1779; again, at the Waxhaws, in 1780; and again, at Guilford court house, in 1781. The constitution of the state was agreed on, Dec. 18, 1776.

Religion.] The western parts of the state are settled by Presbyterians from Pennsylvania, the descendants of Scotch-Irish emigrants. Almost all the country between the Catawba and Yadkin,

* Williamson, Hist. N. Carolina.

as well as that lying on those rivers, is thus peopled. A few settlements of German Lutherans and Calvinists are intermixed. There are some Presbyterians also in the lower country. The Moravians, in 1751, purchased a tract of 100,000 acres of lord Granville. It lies between the Dan and Yadkin, is called Wachovia, and contains a number of flourishing villages, the three largest of which are Salem, Bethany, and Bethabara.

The Friends have a settlement in New-Garden, and congregations at Perquimons, Pasquotank, and Crane creek.

The Methodists and Baptists are numerous in the middle country, and considerably so in the lower districts. The numbers of the first are much greater than those of any other in the state.

Government.] The legislature is styled the *general assembly*, and consists of a senate and house of commons. The senators are chosen annually, one from each county, and must possess 300 acres of land, and have resided the preceding year in the county. The members of the house of commons are chosen annually, two from each county, and one from each of six towns; and must have resided there the preceding year, and be possessed of 100 acres of land. Voters for the senate must possess 50 acres, and have resided in the county one year. Voters for commonsers must have resided one year, and paid taxes.

The governor is chosen annually by a joint ballot of both houses; and is eligible 3 years in 6. He must be 30 years of age, have a freehold worth \$1000, and have resided in the state 5 years. The executive council consists of 7 persons chosen annually by a joint ballot of the two houses.

Population.] North Carolina contained in the year

1749	45,000		
1790	$\left\{ \begin{array}{l} 288,204 \text{ whites} \\ 100,571 \text{ slaves} \\ 4,976 \text{ free bl.} \end{array} \right\}$	393,751	$\left\{ \begin{array}{l} 1800 \left\{ \begin{array}{l} 337,774 \text{ whites} \\ 133,296 \text{ slaves} \\ 7,033 \text{ free bl.} \end{array} \right\} 478,103 \\ 1810 \left\{ \begin{array}{l} 376,410 \text{ whites} \\ 168,824 \text{ slaves} \\ 10,266 \text{ free bl.} \end{array} \right\} 555,500 \end{array} \right.$

The items of the census of 1810, were as follow :

	males.	females.	total.
Under 16 years of age	98,357	95,474	193,831
Between 16 and 45	69,086	71,877	140,963
45 and upwards	21,189	20,427	41,616
Total	188,632	187,778	376,410

At the first census, this was the fourth state in point of population, and at the second and third, the fifth. At the last census, the increase of whites was 39,636 or $11\frac{7}{8}$ per cent.; and that of the blacks 38,761, or $29\frac{7}{8}$ per cent. In the low country the increase of whites bears no proportion to that of the mulattoes and blacks.

Militia.] The number of fencible men in this state may be estimated at about 60,000, organized as in Virginia. In 1818, the militia of this state amounted to 50,387.

Manners and Customs.] The North-Carolinians are mostly planters, and live from a half mile to three and four miles from each other, on their plantations. They have a plentiful country, no ready market for their produce, little intercourse with strangers, and a natural fondness for society, circumstances which induce them to be hospitable to travellers.

Since the peace, there has not been made greater progress in religion, morals, and the arts of civilized life in any of the states, than in North-Carolina. Instead of dissipation and indolence, formerly too prevalent among the inhabitants, we generally find a more orderly, industrious people, who are, in some measure, indebted for this reform to the great immigration of farmers and artizans from other states, who have roused a spirit of industry among them. The schools lately established in different parts of the state, have greatly contributed to the advancement of knowledge, and the improvement of the people. Many native young gentlemen, first initiated in literature in some of these schools, and finishing their education in Europe, or in some of the northern colleges, have exhibited handsome proofs of genius, and are distinguished in the legislature, on the bench, at the bar, and in the pulpit, doing honor to their country.

Literature.] The general assembly of North-Carolina, in December, 1789, passed a law incorporating 40 gentlemen, five from each district, as trustees of "The University of North-Carolina." To this university they gave, by a subsequent law, all the debts due to the state, from sheriffs or other holders of public money, and which had been due before the year 1783. They also gave it all escheated property within the state. A considerable quantity of land was given to the university; among other donations, Gen. B. Smith gave 20,000 acres, within the limits of the Chicasaw country (then in N. Carolina) which a late treaty with that tribe of Indians, has rendered very valuable, probably to the amount of \$100,000. The general assembly, in December, 1791, loaned 5000*l.* to the trustees, to enable them to proceed immediately with their buildings. The trustees fixed on Chapel Hill, in Orange county, for the site of the university, an elevated and handsome situation, 28 miles W. of Raleigh, and 14 S. of Hillsborough. The village began with the university, around which were erected, previous to 1803, 25 or 30 houses. Chapel Hill village is near, containing 15 or 20 houses. The college has 3 professors of mathematics, of chemistry, of languages, three tutors, and upwards of 100 students. There is a library of 2000 volumes, philosophical and chemical apparatus, and a small cabinet of curiosities.

The college edifices are of brick, one 100 feet by 40, two stories high, and another 180 by 40 feet, 3 stories high; houses for the president and steward, of wood, constitute the public buildings belonging to the university. There are about 20 academies in the state, in the principal towns.

There are 12 newspapers published in this state, each once a week. More attention is paid to schools than formerly. Much, however, yet remains to be done on this subject.

This state will probably have the honor of raising the first monument to General Washington.*

Medical Society.] In this state a medical society was incorporated, Dec. 23, 1799. The members of the society are from the most reputable physicians of the state. It is a valuable institution. They have encouraged the culture of various medicinal articles, which thrive here very well. Palma christi and other medicines promise to be articles of exportation.

Cities and Towns.] NEWBERN, the largest town in the state, 40 miles S. E. of Raleigh, stands at the confluence of the Trent with the Neus, on a sandy point of land between the two rivers. The Neus is here a mile and a half wide, and the Trent $\frac{1}{2}$ of a mile. The public buildings are, 3 houses for religious worship, for Episcopalians, Baptists, and Methodists; a handsome court house and jail, all of brick, a theatre, an academy, and 2 banks. The houses formerly were almost wholly of wood, and indifferently built; but since the destructive fires, which have happened here, the new buildings are of brick, and handsome. The town is thriving, having increased in the last 18 years from 2500 to 6000 inhabitants. It owns and employs in a brisk commerce, about 5000 tons of shipping; which carries to market, lumber, tar, and other naval stores, pork, corn &c. A steam boat intercourse is established between Newbern and Norfolk. A passage from the latter, by the former, to Charleston, South-Carolina, a distance of 800 miles, is now easily performed in seven days. Lat. 35 10 00 N. lon. 77 15 W.

FAYETTEVILLE stands on the S. side of Cross creek, and a mile W. from its entrance into cape Fear river, at the head of natural navigation on this river, 90 miles above Wilmington. It is regularly laid out, and the principal streets are 100 feet wide. There are upwards of 500 houses. The public buildings are a Presbyterian church, and two others, a handsome court house, and a town house, an academy, masonic hall, and 3 banks. The inhabitants are almost wholly Scotch Highlanders, and many of them speak their native *Erse*, the language of Ossian. Fayetteville is better situated for commerce, and vends more merchandize than any inland town in the state; and few places are more eligible for the establishment of several important manufactures. There are three mills at this place, which make excellent flour; several cotton machines, which go by water, several extensive tan yards; and one or two consider-

* The following description of this monument is from the pen of Mr. Appleton, consul at Leghorn, where the statue is preparing.

"The inscription is placed on the architrave of the front part of the pedestal; below is represented Lord Cornwallis delivering his sword to General Washington; in both groupes appear about twelve military figures. No 2, represents Washington resigning his commission into the hands of the president of Congress, at the close of the war. No. 3, is Washington receiving the unanimous suffrage, which places him at the head of the government; and No. 4, is Washington holding a plough drawn by two oxen; behind is a humble cottage, near to which are seen Ceres and Mercury, with their suitable emblems. These appear, to my mind, the four most interesting epochs of his life: and as they are sculptured by most able hands, I hope they will meet your approbation." In another part he mentions that it will be completed during the present year (1819.)

able distilleries and breweries. The product received here is tobacco; cotton, which is becoming one of the principal exports from this place, flour, wheat, beef, pork, flax seed, some hemp, butter, and a variety of other articles, the product of a rich and fertile back country, lying to the north and west of this town, from 30 to 180 miles. Add to this, quantities of saw mill lumber, staves, and some naval stores made in the neighborhood. The town has increased since the revolution in a very rapid manner, but has experienced some dreadful checks from fire : the inhabitants begin now to use bricks for building, which are made here of a fine quality, and sold from five to six dollars per thousand. The country immediately round the town is a high, sandy, dry soil, and not fertile, except on the water courses, which are numerous, and generally afford as rich soil as any in the state. Lat. 35 N. lon. 78 45.

WILMINGTON is 34 miles from the sea, on the E. bank of Cape Fear or Clarendon river, near the entrance of the N. E. branch, 94 miles S. S. W. from Newbern. The town is regularly built, and has a court house, and jail, an academy, 2 banks, and 2 houses for religious worship, for Presbyterians and Episcopalians. It has about 2000 inhabitants, and though unhealthy, is otherwise well situated for commerce. It employs about 9,000 tons of shipping, and its exports in 1816, amounted to upwards of \$1,000,000, N. lat. 34 15 W. lon. 78, 02.

EDENTON is situated on the N. side of Albemarle sound, and has about 200 houses, a few of them handsome buildings. It has a handsome court house, jail and bank, and a brick church for Episcopalians, which for many years has been much neglected. Its local situation is advantageous for trade, but not for health. In or near the town lived the proprietary, and the first of the royal governors. It has about 1600 inhabitants, and employs about 6000 tons of shipping in trade. Lat. 36° 05 N. 76 45.

RALEIGH is the seat of the government of the state, and stands in the centre of the state, 120 miles in a direct line from the coast, 40 from the Virginia boundary, between the head waters of the Neus and cape Fear rivers ; 60 miles N. of Fayetteville. Four spacious streets divide the town into as many squares. The houses are of wood. The state house is of brick, 102 feet by 56. 43 feet high, and in beauty and convenience will very well compare with those of other states. It cost \$30,000. The city had, in 1812, about 120 houses, and upwards of 1000 inhabitants. It has a court house and jail, a theatre, state bank, 2 academics, one for each of the sexes, 2 houses for worship. Lat. 35 45 N. lon. 78 47 W.

PLYMOUTH is about 20 miles from Edenton. It is a place of considerable trade. The navigation is free and open, and there is a constant communication between the two places across Albemarle sound. It has 1500 tons of shipping.

HILLSBOROUGH is an inland town, situated in a high, healthy, and fertile country, 180 miles N. of W. from Newbern, 30 N. W. of Raleigh. It was settled by about 60 or 70 families, as long ago as 1786.

WASHINGTON is in the county of Beaufort, on the north side of Tar river, in lat. 35 30; 38 miles N. of Newbern. From this town is exported tobacco, of the Petersburg quality, pork, beef, Indian corn, peas, beans, pitch, tar, turpentine, resin, &c. and pine boards, shingles, and oak staves. About 130 vessels enter annually at the custom house here; and it owns 5,182 tons of shipping, which is more than any other town in the state. The inhabitants are noted for their hospitality.

GREENVILLE, so called after major general Nathaniel Green, is situated in Pitt county, on the S. bank of Tar river, in lat. 35 35 N. W. At this town there is an academy.

TARBOROUGH is in the county of Edgecombe, on the S. bank of Tar river, in latitude 35 45, N. W. of Washington, N.C. At this town large quantities of tobacco of the Petersburg quality, pork, beef, and Indian corn, are collected for exportation. It has a court house, jail and academy.

SMITHFIELD is a pleasant town at the head of navigation on the Neus, 90 miles from Newbern by land, 250 by water. It has a court house and jail, and has considerable trade.

Roads.] The roads of this state have been much neglected, and are in a very bad condition. Bridges are wanting on most of the streams, even on the main post road, in many instances. A spirit of improvement is rising.

Canals.] A canal has been completed around Buckhorn falls, in cape Fear river, 7 miles below the junction of Deep and Haw rivers. Another around Smilie's falls, in the same river, 6 miles long. The Chesapeake and Albemarle canal, heretofore described, is partly in this state and partly in Virginia. One important object of this canal is to convey to market the otherwise useless lumber of Dismal swamp.

A committee of the general assembly, held at Fayetteville, Dec. 1798, being appointed to inquire into the probability of improving the inland navigation of the several rivers in this state, reported, that eight might probably be operated upon with great effect, viz.

	miles.
Broad river for	30
Catawba (a branch of Santee)	140
Yadkin (a branch of Pedee)	180
Haw river	50
Deep river	50
Neus above Smithfield	50
Tar above Tarborough and fishing creek	40
Roanoke above Halifax	30
Dan river	50

 620

The circumstance of these rivers being so generally barred at their mouths, is a great injury to the state, preventing the building of large ships, for which it has an abundance of excellent timber. Some have assigned the cause of these bars to the current of the long

rivers, throwing up the sands, where their rapidity terminates. Others attribute them to the Gulf-stream, which runs near these shores. The extraordinary and destructive overflowings of these rivers after great rains, is occasioned by the narrowness of their mouths not affording a sufficient width of channel for discharging their waters into the sea. A gentleman on the spot asserts that he has seen the water 30 feet below the banks of the river, just after it had been ten feet above them.*

Manufactures.] "There is not a state in the union better calculated than N. Carolina, for increasing their wealth by extensive manufactures."† The Moravians have a paper mill at Salem. Iron works have been established in the counties of Guilford, Surry, and Wilks, all on the Yadkin river; also in Lincoln and Johnson counties. The quality of the iron is very good. Pitch, tar, and turpentine, are among the chief articles of export from this state. Whisky and peach brandy are distilled in considerable quantities for home consumption. The value of the manufactures of this state in 1810, was \$6,653,152.

Commerce.] There are five ports of entry in North-Carolina, viz. Edenton, Camden, Washington, Newbern, and Wilmington; formerly called Port Roanoke, Currituck, Bath, Beaufort, and Brunswick. The average exports for the years 1785, 6, 7, and 8, were nearly as follows:

20 millions of shingles
 2 millions of staves and heading
 5 millions feet of boards and scantling
 100,000 barrels of tar, pitch and turpentine.

The amount of exports from this state, in 1804, was \$928,687; and in 1810, \$403,949; of which \$401,465 were of domestic produce, and \$2484 of foreign; in 1817, \$956,580. A great proportion of the produce of the back country, consisting of tobacco, wheat, and maize, is carried to the Virginia and South-Carolina markets. The exports from the low country are lumber, tar, pitch, turpentine, resin, maize, furs, tobacco, pork, tallow, bees-wax, and myrtle wax. Cheese, cider, apples, potatoes, iron, tin ware, furniture, hats, and shoes, are imported from New-England; and foreign merchandize chiefly from New-York. The aggregate tonnage of this state for the year 1805, was 34,090 tons.

* Williamson's Hist. N. Carolina.

† Ibid.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE, FACE OF THE COUNTRY, SOIL AND AGRICULTURE, RIVERS, INLAND NAVIGATION, SWAMPS, SOUNDS, CAPES, MOUNTAINS, BOTANY, MINERALOGY, MINERAL SPRINGS, CURIOSITIES, ISLANDS.

Climate.] IN the flat country, near the seacoast, the inhabitants are subject to intermitting fevers, which often prove fatal, as bilious or nervous symptoms prevail. These fevers are less dangerous to the natives who are temperate. They bring on other disorders, which greatly impair the natural vigour of the mind, debilitate the constitution, and terminate in death. The countenances of the inhabitants, during these seasons, have generally a pale yellowish cast, occasioned by the prevalence of bilious symptoms. They have very little of the bloom and freshness of the people in the northern states.

It has been observed that more of the inhabitants, of the men especially, die during the winter by pleurisies and peripneumonies, than during the warm months by bilious complaints. These pleurisies are brought on by intemperance, and by an imprudent exposure to the weather. Were the inhabitants cautious and prudent in these respects, they might in general escape the danger of these fatal diseases. June is the most healthy month; often May and July may be called healthy. Summers dry and cool are the most salubrious. More deaths occur in February and March, from inflammatory complaints of the head and breast than in any part of the year. In the hilly country fluxes are common, and very fatal to children. Pulmonary consumptions, epilepsies, apoplexies, tetanus, and rickets, are hardly known in North-Carolina. Ring worms, tetters, scurvy in the teeth and gums, are common. The western hilly parts of the state are healthy. The air there is serene a great part of the year, and the inhabitants live to old age,* which cannot be said of the inhabitants of the flat country. Though

* The following remarkable instances of longevity are from the appendix to Williamson's history of North-Carolina.

age	male	female
106		1
90		1
103		1
90		1
100	1	
90	1	
92	1	

the days in summer are extremely hot, the nights are cool and refreshing. The hottest weather is in July. From the first of July, to the first of September, the mercury ranges between 80 and 96, and sometimes, though seldom, it rises above 100. Within a few years past, the intermittent fever has become more common in the upper parts of the state. Autumn is very pleasant, both in regard to the temperature and serenity of the weather, and the richness and variety of the vegetable productions which the season affords. The winters are so mild in some years, that autumn may be said to continue till spring. Wheat harvest is in the beginning of June, and that of Indian corn early in September.

Face of the Country.] The main land of North-Carolina is separated, in most parts, from the ocean by a sound of different breadths, and a sandy bank, that is about 1 mile broad, and 100 miles long. This bank is chiefly settled; and the inhabitants, some hundreds in number, are employed in fishing, piloting, or navigating small coasting vessels. North-Carolina has been long noted for the number of ships that are wrecked upon its coast, in the vicinity of cape Hatteras. There is hardly any other coast on which a ship may be cast away with so little danger to the lives of mariners. The mariner, or passenger, who may have the misfortune to be shipwrecked, is hospitably received. The *bankers*, as they are called, lend their active assistance in saving the cargo.* The flat or low country in North-Carolina extends from 60 to 80 miles from the sea. When the land rises into hills, stones appear on the surface, the streams ripple in their course, and the country has all that variety of hills and dales, which render it, in this climate, healthful, pleasant and productive. Its natural growth is the pitch or long leaved pine. Between this and the lower falls of the rivers lies a belt of land, about 40 miles wide, consisting of small

The following persons lately died.

Years of residence	age	male	female
1 55	106		1
1 58	112		1
1	105		1
1 56	108	1	
1 60	106	1	
1 56	104	1	
1 40	90	1	

It cannot escape the reader's notice that the most aged persons were women. By living chiefly within doors they escape the diseases that are caused by a sudden change of weather and obstructed perspiration.

There were living in Pitt county, in the year 1794, William Taylor, aged 113; Lancelot James and John Banks, each of them above 100 years old. William Howard, of Acacoke island, aged 108, had lived 77 years on the banks.

* The patriotism and fidelity of these bankers is not less conspicuous, than their humanity. During the whole of the revolutionary war there was not a single case in which an inhabitant of the banks could be prevailed on, by threats or bribes, to pilot a ship of the enemy. There was a case in which a privateer of the enemy took four young men by stratagem, from Roanoke island, and two small schooners. The schooners were armed as tenders to cruise along the coast, and two of the young men were put into each of the small vessels to serve as pilots. Within six days the pilots had the address and courage to become masters of both the tenders, and to bring them with their guns and people to Edenton. *Williamson's Hist. N. Carolina.*

sand hills, and covered with pitch pine. The lower falls of the Roanoke are about 10 miles above Halifax: of the Pamlico, 15 above Tarborough; of the Neus, at Smithfield; of Cape Fear river, some distance above Fayetteville; and of the Yadkin, a few miles below the South-Carolina line. Beyond these falls the country is a land of hills and vallies, and farther back it is mountainous. Inland and river swamps are numerous in the flat country. They abound with cypress and bay trees.

Soil and Agriculture.] There is not a state in the union so fortunate as North-Carolina in the variety of its staple. Wheat, barley, rye, and every other grain that is produced in the northern states, grow here in great perfection. The rice of this state is also of the best quality. The Indian corn, in this state, is not so heavy as that which grows to the northward, but it is much sweeter: it is cultivated with more ease and in greater abundance. White oak trees, for making pipe and hogshead staves, are much taller and clearer from knots, than what are usually found to the northward; and the thick, extensive forests of juniper and cypress, for making shingles, can hardly be exhausted. The large tracts of sandy barren land, that in other countries would be deemed worthless, are covered, in Carolina, with trees of pitch pine, fit for boards; or trees of a smaller size, that yield an abundance of tar. While we contemplate the advantages that are enjoyed by the citizens of this state, and the facility with which the planter may support his family and become independent, it is not to be dissembled, that in many cases the industry or prudence of individuals, is not proportioned to their means of acquiring property*.

The potato is a native of this state, as are yams. It is probable that Gov. White, on his return to England, in 1587, or 88, when he touched at Ireland, carried and left there the potato, which has since proved such an immense blessing to that island.†

Rivers.] The Roanoke runs partly in Virginia, and the Yadkin and Catawba partly in South-Carolina. They have heretofore been described.

Cape Fear river is formed by Haw and Deep rivers. These rise near together in the same mountains, and, running each about 90 miles, unite 7 miles above Buckhorn falls. The course of the river is thence S. and S. E. about 160 miles to the ocean, into which it empties between Cape Fear island and Smithville. It is navigable for sea vessels 25 miles above Wilmington, for large boats to Fayetteville, 65 miles farther, and for smaller boats above the forks. About 6 miles from Wilmington the river divides and encompasses a considerable island, below which it has more the appearance of a bay than a river. Clarendon river, or the N. E. branch, is a stream, that runs nearly S. about 90 miles, and unites with the east arm of Cape Fear river, just above Wilmington. Black river is a

* Williamson.

† See Williamson's Hist. N. Carolina, vol. i. p. 56, note.

longer stream, which rises in the upper country, and running parallel with the Cape Fear, falls into it a little below Appleby.

Neus river rises in the upper country, a little above Hillsborough and near some of the branches of the Roanoke. It runs on the whole S. E. and falls into Pamlico sound at its southwestern extremity. Its length is about 220 miles, of which it is navigable for sea vessels 52, for large boats 90, and for small boats, to Smithfield, 160. Cotecey creek is the principal tributary on the E.; and the Trent on the W. This last empties at Newbern, and is navigable for sea vessels 12 miles, and for boats 25.

Pamlico river is formed by Tar,* river and fishing creek, which unite a little above Tarborough. The last is the longest stream, and heads near Warrenton. The course of the Pamlico is about S. E. and it empties its waters into the western extremity of Pamlico sound. Its length is about 180 miles. It is navigable for vessels drawing 9 feet water, to Washington, 40 miles, and for large boats to Tarborough.

Chowan river is formed by the Nottaway and Blackwater, which unite on the Virginia line, and the Meherrin, which falls in from the W. 10 miles below. All these rise in Virginia, and pursue a southeasterly course. The Meherrin, the longest, runs about 100 miles. After the confluence, the Chowan runs S. E. and S. 40 miles, and falls into the head of Albemarle sound, near the Roanoke, by a mouth 3 miles wide.

Pasquotank, Perquimons, White Oak, and New rivers, are little streams, or rather creeks, extending but a few miles into the country.

Waccamaw and Little Pedee, branches of the Pedee, and Broad river, an arm of the Congaree, flow a considerable distance in this state. Great Kanhawa, a branch of the Ohio, rises in the N. W. part of the state. French, Broad, Holston, and Watuga rivers, branches of the Tennessee, rise here also; and Big Pigeon, another branch of the Tennessee, rises in Georgia and passes across this state.

Swamps.] There are two swamps that have been called *Dismal*.

Great Dismal is on the dividing line between Virginia and North-Carolina, has already been described (p. 256). To the account there given, we add, that in 1818, this Dismal Swamp Canal was widened and deepened to admit larger vessels, to convey to market the increasing productions of the Roanoke country, and those of the many tributary streams of the Roanoke. On the great falls in this river, locks are now in building, and a canal cutting, which, when completed, will greatly facilitate the transportation of the produce of the upper country.

The other dismal is in Currituck county, on the south side of Albemarle sound. This *Dismal* had not drawn the public attention as an object of importance before the end of the late war, at which time it was chiefly taken up. It is now supposed to contain one of the most valuable rice estates in America. In the midst of this Dismal

* The Indians called this *Taw* river, i. e. the river of *heakh*. *Tar* is a corruption of *Taw*. *Williamson*.

there is a lake of about 11 miles long, and 7 broad. A canal from the lake to the head of Skuppernong river, has been opened, 5 miles long, 20 feet wide ; 120 acres of rice have been raised on its margin. The natural channel by which the lake used to discharge its waters is now stopped, and the waters pass off by the canal. About 500 yards from the lake, the company have erected several saw mills. The water in the lake is higher than the surface of the ground for about half a mile from the lake on both sides of the canal ; whence it follows that the company can, at any time, lay under water about 10,000 acres of a rich swamp, which proves admirably fitted for rice. Beside these, there is the Great *Green* swamp, of which we know nothing but the name.

Sounds.] Pamlico and Albemarle sounds have already been described.* Core sound is merely a narrow arm of Pamlico sound, between cape Lookout island and the main.

Capes.] Cape Hatteras is one of the most noted capes on the coast. It is in lat. 35 15 N. ; and is a point running out from the middle of a long narrow sand island, which separates Pamlico sound from the ocean. From the ancient surveys of this part of the coast it appears that the sand banks near the cape, were formerly shoaler and much more extensive, than at present. The out shoals now lie 14 miles S. W. of the cape, are but 5 or 6 acres in extent, and in the least depth have 10 feet water at low tide. The gulf stream touches the eastern edge of this bank, from which there is a sudden descent from 10 fathoms, to no soundings. On this bank it has been the lot of many a good tight ship, to strike in a gale of wind, and go to pieces. No spot in the ocean is more violently agitated, or more dangerous in a storm, than this. The sailors called this bank the *full moon shoal* ; and from it a ridge runs the whole distance to the cape. It is about a half a mile wide, and has 10, 11, and 12 feet water at low tide. There are several gaps or channels, in it, with a depth of 15 or 16 feet. A little N. of the cape, is good anchoring in 4 or 5 fathoms. The bottom, from cape Henry to cape Hatteras, is uniformly a smooth sand.

Cape Lookout is south of cape Hatteras, opposite Core sound, and has already been mentioned, as having had an excellent harbor entirely filled up with sand, since the year 1777.

Cape Fear is remarkable for a dangerous shoal, called, from its form, the *Frying Pan*. This shoal lies at the entrance of cape Fear river, the south part of it, six miles from cape Fear pitch, in latitude 23 32.

Mountains.] The Allegany ridge crosses the western part of the state, and the Blue ridge lies farther east. But we have been able to obtain no satisfactory account of the mountains of North-Carolina.

Botany.] The long-leaved pine covers the flat country, and is also the chief forest tree among the sand-hills. Here the black jack also grows extensively. Cypress and bay are the common trees of the swamps. Red and white oak, walnut, and short-leaved pine are

the principal timber of the back country, below the mountains. On them are found the chesnut, hickory, maple, birch, and most of the trees of the American forest. The mistletoe is common in the lower parts of the back country. It does not grow out of the earth, but on the tops of trees. The roots if they may be so called, run under the bark of the tree, and incorporate with the wood. It is an evergreen, resembling the garden boxwood. The principal wild fruits are plums, grapes, strawberries, and blackberries. Ginseng, Virginia snake-root, Seneca snakeroot, and lion's heart, are among the medicinal herbs. Senna has lately been cultivated with success in this state, under the patronage of the medical society. An acre produces about 200 lbs. and will yield the proprietor about \$400. The labor is inconsiderable. The rich bottoms are overgrown with canes. The leaves are green through the winter, and afford nourishing food for cattle. A species of the sensitive plant grows wild, and Venus's fly-trap is also found here.

Minerology.] A gold mine has been lately discovered in Cabarras county in this state, which had, in 1805, furnished the mint of the United States with virgin gold, which has produced 11,000 dollars gold coin; more has been found, but the extent of the mine has not yet been discovered. Gold has been discovered in other creeks in the same neighborhood.

In Buncomb county, near Mackeysville, at the foot of the mountains, is a mine of cobalt, the ore of which is rich, with a large intermixture of arsenic. Its manufacture into smalt is contemplated.

On some of the rivers in North-Carolina there is found what may be called a *shell rock*, being a concretion of shells and sand, in a hard ragged composition, and is sometimes used instead of stones, for the foundation of houses, which purpose, when mixed with mortar, it answers very well, making a strong wall. It is used in this way at Newbern.

There is a long ridge of limestone, which, extending in a south-westerly direction, crosses the whole state of North-Carolina. It crosses Dan river to the westward of the Sawro towns, crosses the Yadkin about 50 miles N. W. from Salisbury, and thence proceeds by the way of King's mountain to the south. No limestone has been found to the eastward of that ridge. A species of rock has been found in several places, of which lime is made, which is obviously a concretion of marine shells. The state is traversed nearly in the same direction by another stratum of rocks, which passes near Warrenton.

Mineral Springs.] In the counties of Warren, Montgomery, Rockingham, Lincoln, Buncomb, and Rowan, are mineral springs of great medicinal virtue. They are impregnated chiefly with sulphur, nitre, and the aerial acid, and are powerful in removing cutaneous scorbutic complaints, and correcting indigestions. Numbers of people from the lower country and elsewhere, repair to these springs in the autumn for health, which is generally obtained by copiously drinking the waters.

Curiosities.] The Ararat, or Pilot mountain, about 16 miles northwest of Salem, draws the attention of every curious traveller in this part of the state. It is discernable at the distance of 60 or 70 miles, overlooking the country below. It was anciently called the Pilot, by the Indians, as it served them for a beacon, to conduct their routes in the northern and southern wars. On approaching it, a grand display of nature's workmanship, in a rude dress, is exhibited. From its broad base, the mountain rises in easy ascent, like a pyramid, near a mile high, to where it is not more than the area of an acre broad; when, on a sudden, a vast stupendous rock, having the appearance of a large castle, with its battlements, erects its perpendicular height to upwards of 300 feet, and terminates in a flat, which is generally as level as a floor. To ascend this precipice, there is only one way, which, through cavities and fissures of the rock, is with some difficulty and danger effected. When on the summit, the eye is entertained with a vast delightful prospect of the Apalachian mountains, on the north, and a widely extended level country below, on the south; while the streams of the Yadkin and Dan, on the right and left hand, are discovered at several distant places, winding through the fertile low grounds, their way towards the ocean.

In the county of Rowan, about 10 miles southwest from Salisbury, 200 from the sea, and 70 from the mountains, is a remarkable subterraneous wall. It stands on uneven ground, near a small brook. The stones of the wall are all of one kind, and contain iron ore. They are of various sizes, but generally weighing about four pounds. All are of a long figure, commonly 7 inches in length, sometimes 12. The ends of the stones form the sides of the wall. Some of these ends are square, others nearly of the form of a parallelogram, triangle, rhombus, or rhomboides; but most of them are irregular. Some preserve their dimensions through the whole length; others terminate like a wedge. The alternate position of great and little ends aids in keeping the work square. The surface of some is plain, of some concave, of others convex. Every concave stone is furnished with one convex. Where the stones are not firm, they are curiously wedged with others. The most irregular are thrown into the middle of the wall. Every stone is covered with cement, which, next to the stone, has the appearance of iron rust. Where it is thin the rust has penetrated through. Sometimes the cement is an inch thick, and where wet, has the fine, soft, oily feeling of putty. The thickness of the wall is uniformly 22 inches, the length yet discovered is about 300 feet, and the height 12 or 14. Both sides of the wall are plastered with the substance in which the stones are laid. The top of the wall appears to run nearly parallel with the top of the ground, being generally about a foot below the surface. In one place it is several feet. There is a bend or curve of 6 feet or more, after which it proceeds in its former direction. The whole appears to be formed in the most skilful manner, but when or for what purpose, is left entirely to conjecture.

Six or eight miles from this wall another has since been discovered, 40 feet long, 4 or 5 feet high, 7 inches thick. These stones are all of one length, but of different kinds.

Islands.] The coast of this state is lined with small islands of no great importance, but to impede the navigation. Among these, are *Smith's* island, at the mouth of cape Fear river, remarkable for the production of a fine breed of sheep, resembling the wild merinos of Spain. They are perfectly wild, are very fine boned, and run with great swiftness. The fleece is fine, of most delicate softness to the touch, and purely white. It nearly resembles the best Spanish wool, except that the animal will yield three times as great a quantity. The sheep of the island are shorn twice a year, at which time they are driven into spaces enclosed on the one side, and bounded by the sea on the other. After shearing they are set at liberty, and re-assume their native wildness. The extent of the island is such that many are never taken, and live to a great age. The climate, pasturage, and constant access to salt, together with many other causes, at present not known, have no doubt greatly contributed to improve the fleece.

SOUTH-CAROLINA.*

CHAPTER I.

HISTORICAL GEOGRAPHY.

EXTENT, BOUNDARIES, DIVISIONS, NAME, HISTORY, ORIGINAL POPULATION, RELIGION, GOVERNMENT, POPULATION, MILITIA, REVENUE, BANKS, MANNERS AND CUSTOMS, LITERATURE, CITIES AND TOWNS, ROADS, BRIDGES, INLAND NAVIGATION, MANUFACTURES, COMMERCE.

Extent.] THIS state lies between lat. 32° and 35 8 N. ; and between lon. 78 24 and 83 30 W. The greatest length of the state, from the mouth of the Santee to the N. W. angle, is upwards of 340 miles. The breadth on the coast is 170 miles, but it is generally much less ; and, at the farthest extremity, it terminates in a point. It contains 24,080 square miles ; of which 14,510 are between the falls of the rivers and the Atlantic, and 9,570 above the falls.

* The following description of South-Carolina has been improved from MS. remarks by judge Dessaussure, but more largely from Dr. Ramsay's late excellent history of this state, in 2 vols. 8vo. 1809.

Boundaries. On the N. and N. E. by North-Carolina ; on the E. by the Atlantic ; and on the S. W. and W. by the Savannah and Tugulo rivers, which separate it from Georgia.

Divisions.] This state is divided into 28 districts.

Districts.	No. inhab in 1800.	No. inhab. in 1810.
Charleston	57,480	63,179
Chester	8,185	11,479
Spartanburgh	12,122	14,259
Laurens	12,809	14,982
Marlborough	18,299	4,966
Darlington		9,047
Chesterfield		5,564
Union	10,235	10,995
Fairfield	10,097	11,857
Pendleton	20,052	22,897
Newberry	12,006	13,964
Marion	6,914	8,884
Lexington	15,766	6,641
Williamsburgh		6,871
Orangeburgh		13,229
Lancaster	5,012	6,318
Edgefield	18,130	23,160
Georgetown	22,938	15,679
Horry		4,349
Barnwell	7,376	12,280
Abbeville	13,553	21,156
Kershaw	7,340	9,867
Greenville	11,504	13,133
Sumpter	13,103	19,054
Beaufort	20,428	25,887
York	10,248	10,032
Richland	6,097	9,027
Colleton	24,903	26,359

Total 345,591 415,115

This state is entitled to 9 representatives to congress.

Name.] This was a part of the *Florida* of the early Spanish and French, and of the *Virginia* and *South-Virginia* of the early English voyagers. With North-Carolina and Georgia it received the name of *Carolana*, in 1630 ; and, that of *Carolina*, in 1663. The name of *South-Carolina* was given it, when it was separated from North-Carolina, in 1729. It then included Georgia.

History.] The coast of this state was discovered by the early American voyagers. It was included in South-Virginia, as limited by king James's patent of 1606 ; and, with North-Carolina and Georgia, constituted the country of *Carolana*, as described in that of Charles I. (to sir Robert Heath) in 1630. In 1663, Charles II. granted the same tract, to the earl of Clarendon and others, calling it *Carolina*. Two years after, the king gave a second charter to the same persons with an extension of privileges.

In 1670, the first settlement was made under gov. Sayle, at Port Royal; who removed with his colony, the next year, and planted old Charlestown, on the west bank of Ashley river, and 9 years after they abandoned that settlement and began to build on the present site of Charleston. Mr. Locke's constitution for the government of Carolina, arrived in 1670, and though for a while in operation, was found wholly inadequate to the state and necessities of the colony.

In 1672, the Spaniards of St. Augustine made an unsuccessful attempt to disturb the peace of the settlers. The first assembly of the whole province met two years afterwards at Charlestown.

In 1682, the province was divided into 3 counties. A colony of French refugees, in 1690, exiled in consequence of the revocation of the edict of Nantz, settled in Carolina. The proprietors, in 1693, wholly abolished Mr. Locke's constitution, and restored the people to their rights under their charter. The next year rice was introduced into the province from Madagascar, by gov. Thomas Smith. The church of England was established, by law, in 1703.

The French and Spaniards, from St. Augustine, invaded Charlestown, in 1706, but were repulsed with loss. The *Yamassees*, a powerful tribe of Indians, invaded Charlestown, in 1715, and were defeated. The colonists throughout Carolina threw off the proprietary government, in 1719, and established one for themselves. The next year the privy council sanctioned their proceedings; and, in 1729, parliament, for 17,500*l.* purchased the territory of the proprietors for the crown, when it was divided into two provinces of North and South-Carolina.

A Swiss colony settled at Purysburgh in 1735, a German colony at Orangeburgh in 1735, and an Irish colony at Williamsburgh in 1737.

In 1740, a most formidable insurrection of the negroes took place, which was instigated by the Spaniards. The culture of the indigo plant was introduced into South-Carolina, 1743, by Miss Lucas.

In 1752, 1600 foreign Protestants arrived in Carolina.

The province suffered severely from the incursions of the Cherokees in 1760; and, the following year, completely reduced them.

In 1764, a large colony of Germans settled the town of Londonderry. The peace of South-Carolina was threatened, in 1768, by an insurrection of back country settlers in North-Carolina, under the name of Regulators.

In 1769, this, with the other provinces, began openly to resist the oppressive measures of the British ministry.

In 1775, an insurrection of the tories in this state was suppressed.

The British troops occupied Charleston, and a considerable part of Carolina, in 1780. Several actions were fought here during that and the succeeding year, the most decisive of which was the battle of Eutaw Springs, in 1781, which, in effect, terminated the war in this state.

The constitution of this state was adopted in 1790.

Original Population.] When South-Carolina was settled by the English, it was in the occupation of 28 nations or tribes of Indians. The principal of these were the Cherokees, the Catawbias, the

Creeks, the Chickasaws, and the Choctaws. The Cherokees inhabited the western part of the state, in the districts of Pendleton and Greenville; they ceded this territory to Carolina in 1777, and now reside beyond the mountains. The Catawbaws were settled in the northern part of the state, partly in North-Carolina, and still keep part of their original possessions, at present occupying a tract of country 15 miles square, on each side of Catawba river. They are fast decreasing. Of the 28 original tribes, 26 have entirely disappeared.

Religion.] In this state, there were, in 1811, 10 Episcopal churches, 3 of which were in the city of Charleston, and 16 clergymen of this denomination, 4 of whom had no cures. They have a bishop.

The Presbyterians of different descriptions organized at the period above mentioned, in five presbyteries, viz. The presbytery of Charleston, the most ancient in the state, consisting of 5 churches; two in the western part of the state, consisting of more than 20 ministers, who had in their connexion more than 60 congregations; another presbytery embraced several churches in Georgia, with a number in the lower parts of Carolina; and a presbytery of seceders, consisting of 9 ministers, and had under their care 22 congregations. The first and last excepted, these presbyteries are in connexion with the general assembly of the Presbyterian church.

The Baptists had 5 associations, consisting of 100 ministers, 130 churches, 10,500 communicants, and about 75,500 adherents.*

The Independents or Congregationalists had 7 churches, and 6 ministers.

The Methodists had 26 travelling, and upwards of 90 local, preachers, whose annual compensation together amounted to \$2080.† They had about 200 churches or stations for preaching, which cost, on an average, but about \$135 each.

Beside the above, there are a few German and French Protestants, Quakers, Roman Catholics, and Jews. The greater part of these denominations reside in the city of Charleston.

The constitution of this state tolerates all religions, and "those individuals, also, who keep aloof from all religious societies."‡

Several benevolent institutions have been established in this state for the benefit of elderly and disabled ministers, and their widows and orphan children.

Government.] The legislature consists of a senate and house of representatives. The senate is composed of 43 members, chosen every 4 years, by districts. A senator must be a free white man, 30 years of age, must have been a citizen and resident in the state the 5 preceding years; and, if a resident in the district, must be worth 300*l.* sterling; if not, 1000*l.* Half of the senators are chosen every two years. The house of representatives consists of 124 members, chosen every two years, by districts. A representative must be a free white man, 21 years of age; must have been a citizen and resident in the state the three preceding years; and, if a resident in the district, must be worth 500 acres of land and 10 negroes, or

* Ramsay's Hist. vol. ii. p. 25, 28.

† Ramsay, p. 31.

‡ Ibid. p. 40.

a real estate valued at 150*l.* sterling ; if not a resident, he must have a freehold worth 500*l.*

The governor is chosen every two years, by a joint ballot of both houses. He can hold the office only two years in six. He must be 30 years of age, and possessed of a real estate worth 1500*l.* sterling ; and must have been a citizen and resident 10 years. A lieutenant governor is chosen for the same time and must have the same qualifications. The governor has power to pardon, except in cases of impeachment.

Justice is administered in the state by courts of law and courts of equity. The state is divided into 28 law districts, which are thrown into 5 circuits. Six judges, with each a salary of 600*l.* who hold their offices during good behavior, constitute this court. A judge goes round each circuit, twice a year, with power to try all civil and criminal cases with the aid of a jury. After the close of the circuit, the judges assemble, and determine motions in arrest, and petitions for new trials. The state is also divided into 9 equity districts, which are formed into 3 circuits. Five judges, with the same salary and tenure of office, constitute this court. A judge goes round each circuit, twice a year, to hear all cases in equity ; and, at the close of the circuits, the judges assemble to hear appeals.

Population.] The following numbers are the result, partly of estimates made at the time, and partly of actual enumerations :

1700	5,500 whites				
1721	14,000 whites		1790	130,178 whites	239,073
				107,094 slaves	
1723	14,000 whites	32,000		1,801 free bl.	
	18,000 blacks			196,255 whites	345,591
1734	7,333 whites	27,333	1800	146,151 slaves	
	22,000 blacks			3,185 free bl.	
1750		30,000		214,201 whites	415,110
1765	40,000 whites	130,000	1810	196,365 slaves	
	90,000 blacks			4,554 free bl.	

The items of the census of 1810 were as follow :

	males.	females.	total.
Under 16 years of age	56,862	54,126	110,988
Between 16 and 45	41,421	39,562	80,983
45 and upwards	11,304	10,926	22,230
Total	109,587	104,614	214,201

The increase in the first 10 years was 96,518 ; in the second 10, 69,524. The increase of whites in the last 10 years was 17,946, or $9\frac{1}{2}$ per cent.; that of the blacks was 51,583, or $34\frac{1}{2}$ per cent. This great disproportion is, in part, owing to the importation of slaves from Africa, which was permitted by the legislature of this state, till the national law prevented it ; and, in part, to intermixture. The blacks will considerably out-number the whites at the next census, should the increase be in the proportions above mentioned, as they do already in the flat country. The proportion of blacks to whites is much greater in this, than in any other state. It is nearly as 20

to 21. South-Carolina, at the first and second enumerations, in point of population, was the seventh state; and at the third, the sixth. In black population it was the third at the first; and the second at the second and third. "In the year 1755, the country, from the Waxhaws, on the Catawba, across to Augusta, on Savannah river, did not contain 25 families. Within the same limits, in 1809, there were 12 large and populous districts." In one of these districts, containing 17,000 white inhabitants, there is not a woman of the age of 25, who is not a wife or a widow.*

Militia] The militia of this state is at present respectable. It is divided into 5 grand divisions, each commanded by a major general. These divisions comprehend 10 brigades.

In 1811, the state of the militia was as follows :

Rank and file	25,194	Cavalry	1,587
Artillery	914	Riflemen	3,104

Total 33,729

Revenue.] The average of taxes annually collected, is about 135,000 dollars, and the state receives from other sources about 175,000 dollars, making in the whole a revenue of \$310,000. The expenditures on an average, amount to about 220,000. In 1804, the state had a balance in their treasury of \$754,775, 300,000 of which they invested in the stock of their state bank, and with part of the remainder they endowed the college at Columbia. The legal rate of interest in this state is 7 per cent. The taxes are on lands and negroes. The lands, for the purpose of being taxed according to their value, are divided into three grand divisions; the first reaches from the sea-coast to the extent of the flowing of the tides; the second, from these points to the falls of the rivers; and thence to the utmost verge of the western settlement makes the third. These grand divisions, for the sake of more exactly ascertaining the value of the lands, are subdivided into 21 different species. The most valuable of which is estimated at six pounds, and the least valuable at one shilling per acre. Half per cent. on the value thus estimated, is levied from all granted lands in the state. The collection of taxes is not annexed to the office of sheriff, but is committed to particular gentlemen appointed for that purpose, who are all allowed two and a half per cent. in Charleston, and five per cent. in the other parts of the state, on all they collect.

Banks.] There are 8 banks in this state; 6 at Charleston, 1 at Columbia, and 1 at Georgetown.

Manners and Customs.] In the back country, the inhabitants are generally farmers on the New-England plan; they have few or no slaves, and cultivate their own lands. They live however chiefly on plantations. In the low country almost all the whites live on plantations. The only labourers here are slaves, and the blacks constitute more than half of the inhabitants. The evils necessarily attendant on slavery are of course extensively felt.

* Ramsay's Hist. vol. ii. p. 600, 602.

Among the virtues of the Carolinians, Dr. Ramsay enumerates the love of liberty, hospitality, charity, and a sense of honor. Among the vices, drunkenness, a disposition to contract debts, and indolence. Hunting, both as a business, and a diversion has always been useful and fashionable in Carolina. Dancing is a favorite diversion among the young people. Great attention is paid to music, and many attain to excellence. The complexion of the Carolinians inclines to a greater degree of sallowness, than is common in more northern latitudes. The inhabitants of Carolina may be divided into 4 classes. The *planters*, who have large incomes, live at their ease, are high minded, and possess much of that dignity of character, which constitutes an independent country gentleman. The farmers are more active, depend on their own exertions, and have few or no slaves. The *cottagers* have no slaves, and being unable to procure the place of overseers, have no resource but irregular employment, to obtain a subsistence. The lowest class, called *squatters*, have always been nuisances. Settling on any man's land—paying no rent—cultivating little or no ground—they live ostensibly by hunting, but often shoot the domestic animals of their more industrious neighbors. This last class are rapidly diminishing.

“The female character appears to great advantage in Carolina. The women are generally well educated. Many of them have highly cultivated minds and refined manners. The name of the family always depends on the sons; but its respectability, comfort, and domestic happiness, often on the daughters. While young they enter into amusements with the vivacity natural to their age; but this vivacity is in general so well tempered by sweetness of disposition, and discretion, as leaves little room for anxiety to their parents with regard to their future conduct. No pursuit of pleasure interferes with duty to a father or affectionate attention to a brother; so that the happiness, as well as cheerfulness, of a family is increased in proportion to the number of daughters. When they become wives and mothers they are devoted to their families—they regard their husband's friends and relations as their own. They follow no amusement incompatible with their new duty, but seek to “make well ordered home man's best delight:” nor are there wanting examples of those, who, remaining single, perform admirably well the duties of daughters, sisters, and friends, and have been eminently useful in assisting to train up and educate their younger connexions. They are capable of enjoying prosperity with zest, and of bearing adversity with dignity and patience. Their virtues were put to a severe trial in the American revolution, and the result was highly in their favor. When they are left widows, though with small means, large families, and great embarrassments, they, in many cases, extricate the estate with wonderful address, and devote themselves to the education of their children. Speculating, intemperate, mismanaging husbands advance their families by dying and leaving to their widows the sole management of their embarrassed fortunes. In the lower grades of life,

where there are no fortunes to repair, the industry and economy of the wife produces similar results, eminently conducive to the advancement of the common interest."*

To the correctness of this character, the author, from a pretty extensive personal knowledge, can cheerfully add his testimony.

Literature.] In 1785, three colleges were constituted in this state, on the same day, one at Charleston, one at Winnsborough, and the other at Cambridge; but they are colleges in name only, in truth only grammar schools. In 1795, a charter was granted for a college at Beaufort. Its funds were derived from the sale of escheated and confiscated property in the district, and also from the sales of the vacant lots in the town of Beaufort. The latter in a few years rose two or three hundred per cent. in value, and aided the funds of the institution beyond the expectation of its most sanguine friends. Suitable buildings for the accommodation of the students were erected, and schools set on foot preparatory to admission into the college. The seminary blossomed well, but little fruit has yet been gathered. Its funds amount to between 60 000 and 70 000 dollars. It has many natural advantages favorable to the proper education of youth.

The multiplication of colleges did not answer the proposed end. The assembly, in the year 1801, took up the business on its proper ground, and passed a law for building and endowing a college at the seat of government, Columbia, by the name of the *South-Carolina College*. It is under the management of a board of trustees, consisting of the governor, judges, and other great officers of state, and of 13 other gentlemen, selected for their character and talents. The instructors are a president, 4 professors, of languages, moral philosophy, and logic—of mathematics, mechanic philosophy and astronomy, and of chemical and experimental philosophy and mineralogy, and two tutors. An extensive library and handsome philosophical apparatus have been presented by the state. The legislature has endowed this seminary with an annual income of about \$12,000, and is constantly holding out to it a fostering hand. The college edifices are, 2 of 210 feet by 25, 3 stories high, houses for the president, professors, steward, and a building for the library (which contains 5000 vols.) the philosophical apparatus, with an observatory on its summit. These buildings are all of brick, grouped together in a handsome manner. The number of students is about 100.

There are academies at Charleston, two in Newberry district, one at Spartanburgh, a most respectable one in Abbeville district, and another at Pineville, in St. Stephen's district, and others in various parts of the state. There is a general and increasing desire among the inhabitants to give an education to their children. Formerly those of wealthy parents were sent in considerable numbers to Oxford and Cambridge; now many more are sent to Harvard and Yale. The library society in Charleston possesses a large and

* Ramsay.

well chosen library, of about 13 or 14,000 volumes, which is increased annually by an importation of books to the amount of 300*l*. sterling. The South-Carolina society, formed in the year 1737, for the purpose of charitably educating poor children of both sexes, has a fund of \$137,000, and supports a school of upwards of 70 children. The children are clothed as well as educated. There are several other incorporated societies, for the like benevolent purposes, in different parts of the state. The state annually appropriates \$30,000, for the support of free schools, which are established all over the state. At specified periods two of the best scholars in the orphan house and school in Charleston, are selected and sent to the South-Carolina College, and educated at the public expense.

Cities and Towns.] CHARLESTON is the largest town in the state, and in the whole country south of Baltimore ; and the fifth in size in the United States. It is built on a peninsula, between Ashley and Cooper rivers, which unite immediately below the city, and form a capacious and convenient harbor. The tide here rises usually 6½ feet. The Ashley is 2100 yards wide opposite the town, and the Cooper 1400. Both are deep and navigable for large vessels. The town is 8 miles from the ocean, and its site is elevated but a few feet above the height of spring tides. The harbor is barred, with 4 openings across the bar, the deepest of which has 14 feet water. Three forts, Pinckney, Johnson, and Moultrie, defend the harbor. The city is a mile and a quarter long, and three quarters wide. The streets extend east and west between the two rivers ; others intersect them nearly at right angles, from N. to S. They are from 35 to 70 feet in width. The new houses are of brick, and many of them are elegant. The public buildings are an exchange, state house, armory, poor house, orphan house, theatre, hospital, 6 banks, and 18 houses for religious worship, viz. 2 Independent or Congregational, 3 Episcopalian, 3 Presbyterian, 3 Methodist, 1 German Lutheran, 1 Baptist, 1 orphan house church, 1 French Protestant, 1 Friends, 1 Catholic, and 1 Jews' synagogue. One of the Congregational churches is an elegant brick edifice, built in the form of a circle, the inner diameter of which is 88 feet. The orphan house is a spacious edifice, erected at the close of the 18th century, in which about 130 orphan children are comfortably supported and well educated. A church is annexed to this institution, in which are stated religious exercises on the sabbath, performed by all denominations of christians in turn. This admirable Institution is under the management of 12 gentlemen, and 12 lady commissioners, selected from the first characters in the city. The population of the city in 1790, was 16,359 ; in 1800, 20,473 ; and in 1810, 24,711 ; viz. 11,668 whites, and 13,143 blacks, of whom 11,671 were slaves. Unaffected hospitality, affability, and politeness, are characteristics of the respectable people of Charleston. The commerce of this city is extensive and increasing ; the aggregate tonnage in 1805, was 42,547. In 1816, 36,473. The climate here is delightful, and the markets excellent and abundant. Lat. 32 44 30 N. lon. 80 39 45 W. 553 miles S. by W. from Washington, 121 S. S. E. from Columbia.

GEORGETOWN is on a point of land between Sampit creek and Georgetown bay, well situated for trade. It is connected with a rich back country by Pedee, Black, and Waccamaw rivers, which fall into Winyaw bay. It is about 13 miles from the sea; and vessels, drawing more than 12 feet water, cannot enter its harbor. The public buildings are a court house, jail, bank, academy, and 4 churches for Episcopalians, Presbyterians, Methodists, and Baptists. The number of dwelling houses is about 130, of families about 150, and the population in 1810, was about 2,000, of whom between 6 and 700 were whites; 482 miles S. by W. from Washington, 150 S. E. from Columbia, and 60 N. N. E. from Charleston.

COLUMBIA is the seat of government, and of South-Carolina college. It stands on the east side of the Congaree, just below the confluence of Saluda and Broad rivers. It is laid out in a regular manner, on an elevated plain, which slopes on every side, commanding an extensive prospect. Contains about 600 houses, and very flourishing. The public buildings are the college edifices already named,* a state house, court house, and jail, an academy for young ladies, and 4 houses for religious worship, 1 for Presbyterians, of brick, elegant, with two spires, 1 for Episcopalians, 1 for Methodists, and 1 for Baptists. Intercourse with Charleston, by steam boat, has been lately established. No interior town in the southern states, has fairer prospects of rapid and extensive growth than this. It is 121 miles N. W. of Charleston, 73 N. E. from Augusta, and 507 S. S. W. from Washington. Lat. 34 N. lon. 80 30 W.

BEAUFORT is very pleasantly situated on Port Royal island, at the mouth of the Coosawatchie river. It contains an Episcopal, a Baptist, and an Independent church, and about 120 houses. Here is also a large and handsome college edifice. The harbor is one of the finest, most safe and capacious on the American coast. The town is remarkably healthy, and the state of society highly agreeable. Here is a well chosen public library of about 700 volumes, and schools containing together about 200 scholars. It is 70 miles southward of Charleston.

CAMDEN is built on the E. side of the Wateree, 35 miles N. E. of Columbia. It was settled in 1750, and incorporated in 1791. It contains a Presbyterian, a Methodist, and Baptist church, a court house, and jail, and 150 to 200 houses. It has considerable advantages for trade, having an easy and quick communication with Charleston, through the Santee canal, and an extensive and thriving back country, in both the Carolinas. Two battles were fought here during the revolutionary war.†

Roads.] A turnpike between Charleston and Columbia is not yet completed. Little attention has been paid to the roads in this state. In the low country they can be made only at a very great expense, as the materials must be brought from a great distance. In the upper country the soil itself furnishes the materials. A good waggon road has been opened from the back settlements to Knoxville, in Tennessee.

* See art. *Literature*.

† See Ramsay's Hist.

From the head waters of the Catawba in the vicinity of Morgantown, a turnpike road, or a canal, might be formed to the head waters of both the Kanhawa and Tennessee ; which three rivers head near each other. Either, when accomplished, would facilitate intercourse between Charleston and the states of Kentucky and Tennessee easier, than it can be carried on, between these western states and any other Atlantic port in the union.

Bridges.] Bridges have been erected over the Congaree, at Columbia, and the Savannah, at Augusta ; but have been carried away by freshets.

A bridge over Ashley river, was built in 1810 and 1811, a mile above the city 33 feet wide and 2100 long, which was swept away in a tremendous gale, in 1813. A team boat ferry, with 8 horses, now supplies its place.

Inland Navigation.] A canal, 22 miles in length, connects Santee and Cooper rivers. The ascent, from the Santee to the highest intervening ground, is 35 feet, and is effected by 4 locks ; the descent to the Cooper is 68 feet, and is effected by 9 locks. The locks are of brick and stone, and are 60 feet long, by 10 wide. The canal is 20 feet broad at the bottom, and 35 at the top ; and has 4 feet depth of water, admitting boats of 20 tons. The expense was \$650,667. The toll does not exceed \$13,000. The Keowee, or Seneca river, at an expense of less than \$700 has been rendered passable in boats, carrying 10,000 weight, more than 20 miles from its mouth. Many other projects for improving inland navigation in this state have been formed, but are not yet carried into effect. Two or three hundred artizans from the northern states were to be employed (1819) in carrying into effect these projects, under the direction of Major Wilson, the Engineer.

Manufactures.] Domestic manufactures, in the upper districts, are carried on to an extent which goes far to supply the wants of families, but none are made for exportation, articles of iron excepted. The numerous streams and convenient falls, which abound in this part of the state, offer great advantages for carrying on various manufactories, where the impelling power of water is necessary. Hats have been made of the palmetto, which are strong and durable ; those of the common kind are made in the western districts. Tanners and shoemakers are common. But the genius of the people leads them to agriculture. The first iron works in this state were erected in 1773, in the upper country. They were destroyed during the revolutionary war, and rebuilt in 1783. The amount of manufactures in this state in 1810, was \$3,623,595.

Commerce.] The exports from this state, in 1804, amounted to \$7,451,616, and in 1810, to \$5,290,614, of which \$4,881,840 were of domestic produce, and \$408,774 of foreign. In 1811, the whole amount of exports was \$4,861,279, and 1817, \$10,372,613. Cotton is the capital article, and exceeds in value all the others. Rice is now of the second consequence. At the commencement of the American revolution, the average quantity annually exported was about 142,000 barrels. The annual export since the introduction of cotton has been about 100,000 barrels. The other articles are

lumber, pitch, tar, turpentine, beef, pork, indigo, and tobacco. Of this last article 9.646 hogshheads were exported in 1799. Charleston furnishes foreign merchandize to almost all South-Carolina, to a considerable part of North-Carolina, and to a part of Georgia. It is 100 miles nearer to Knoxville, in Tennessee, than any other large seaport, and will probably engross, ultimately, the trade of a considerable part of the country south of the Ohio. The foreign trade of South-Carolina is with Great Britain, Germany, to the Mediterranean, with France, Spain, United Netherlands, Madeira, and Russia. There was but one vessel fitted out from Charleston for the East-Indies, previous to 1810.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE, FACE OF THE COUNTRY, SOIL AND AGRICULTURE, RIVERS, LAKES, CASCADES, HARBORS, MOUNTAINS, CATARACTS, AND SPRINGS, BOTANY, ZOOLOGY, MINERALOGY, MINERAL WATERS, NATURAL CURIOSITIES, ISLANDS.

Climate.] SOUTH-CAROLINA lies in the same parallel with Cyprus, Candia, Morocco, Barbary, Damascus, Tripoli, Palmyra, Babylon, and other parts of Turkey in Asia, and with parts of Persia, India, and China. In comparing American climates with those of Europe, to bring them to a par with each other, a difference of 12 degrees should be allowed for peculiarities in the American continent. The most remarkable of these is such a predominance of cold as subjects an American, in N. lat. 35, to an equal degree of cold with an European residing in N. lat. 47. The climate of South-Carolina is in a medium between that of tropical countries and of cold temperate latitudes. It resembles the former in the degree and duration of its summer heat, and the latter in its variableness. Since 1791, the difference between the coolest and warmest summers has ranged between 88 and 93, and the difference between the mildest and coldest winters has ranged on a few particular days from 50 to 17. The degree of heat in Charleston is considerably less than in the interior western country. In the summer of 1808, at Columbia, it was frequently at 96 and 97, and sometimes at 98; while at Charleston it did not exceed 91. April, May, and June are in common the healthiest months, with the exception of the cholera infantum and bowel diseases among children. August and September are the most sickly; April and May the driest; June, July, and August the wettest; November the pleasantest. The old people are oftenest carried off in cold weather; the young, the intemperate, and the laboring part of the community, when it is hot. In some years January, and in others February, is the coldest month. It is remarkable that when orange trees have been destroyed by frost, it has always

been in the month of February. It is also remarkable that oranges, though plentiful 40 or 50 years ago, are now raised with difficulty. Once in every 8 or 10 years a severe winter destroys the trees on which they grow. Of this kind were the winters of 1766, 1779, 1786, and 1796. The transitions from heat to cold have, in the same period, been great and rapid. November and December are the best months in the year for strangers to arrive in Carolina. Such should calculate so as not to make their first appearance either in summer or in the face of it, or in the first months of autumn. The hottest day of the year is sometimes as early as June, sometimes as late as September, but oftener in July or August. The hottest hour of the day in Charleston varies with the weather; it is sometimes as early as ten in the forenoon, but most commonly between two and three in the afternoon. In winter the mountains near the western boundary of the state are often covered with snow. From thence to the sea shore snow but seldom falls so as to cover the ground, except on extraordinary occasions. The soil is seldom in like manner bound up with frost. This seldom extends into the ground more than 2 inches. In March and April the planting season begins and continues till June. In July and August the heats increase, and the heavy rains set in, attended at times with severe thunder and lightning. September is the principal month of harvest. In it the evenings and mornings are chilly, but the sun is extremely oppressive in the middle of the day. Storms of rain are produced, accompanied sometimes with hurricanes. The leaves of deciduous trees begin to fall, and nature by degrees assumes the sober dress of winter. In October the weather is generally mild and clear. About the middle of this month frosts commence and generally terminate in the month of March. On their approach they bring with them a cure for the fevers then usually prevalent. The inhabitants of Charleston keep fires in their houses from four to six months in the year; but there are some warm days in every one of them in which fires are disagreeable. On the other hand there are some moist cool days in every month in the year, with the exception of July and August, in which fires are not only healthy but pleasant. These, with the addition of June, are the only months which are exempt from frost in all years and in every part of South-Carolina. Sharp cold weather seldom commences before December, though there are several cold days in November, and the evenings and mornings are generally so. In these two months, especially the last, vegetation is checked and continues so for about four weeks. In this manner the annual circle revolves in the varying climate of South-Carolina. The last half of December and the first half of January is the dullest period of the whole. If the year was to be regulated with a particular reference to Carolina, it might be said to commence about the middle of January, and to terminate about the middle of December; for the one begins and the other ends its visible natural vegetation.

The hygrometer in Charleston shows an almost constant humidity in the air. For the last 7 years it has not marked in any one year more than 24 dry days; and the average of the whole 7 years is less than 16 dry days for each. The variation of the barometer is considerable. It generally stands between 30 and 31, but has been as low as 29.7 and as high as 31.8. The extremes of heat and cold since 1791 have been 76° asunder. The average annual fall of rain for 7 years (1795—1801) was 57.14 inches. The quantity in 1799, the most abundant year, was 83.4 inches; that in 1800, the least abundant, was 38.6.

In the upper country the climate is much like that of New-England; except that it is less severe in winter, and rather warmer in summer. Since 1800, it has been less healthy than formerly. The progress of population and cultivation has introduced new diseases common in older settlements. The old settlers in the upper country say that the spring season, is several weeks later than formerly.

Face of the Country.] This state is sometimes divided, as to its surface, into Lower and Upper country; and sometimes, into Lower, Middle, and Upper. The Upper country includes all the land above the falls of the rivers; the Middle includes a tract of 40 miles broad, lying below this; and the Lower is intended sometimes to comprise the middle and all the country below it; and sometimes only the country between it and the seacoast. According to the second division, the Low country reaches from the sea about 80 miles. This tract is an almost absolute level, and entirely destitute of stones. The surface is a very thin stratum of light black earth, resting on a bed of sand; which, in some places, is only a few feet thick, and lies on a substratum of marl or clay; and, in others, is 15 or 20, and rests upon a bed of small and broken sea-shells. This country produces extensive forests of of pitch pines, which are called *pine barrens*. The only under-wood, in these, is the shrub oak; and a coarse wild grass covers the ground. Extensive swamps and marshes are also found in this tract; and great numbers of creeks, bays, and inlets put up from the coast. In this distance, by a gradual ascent from the seacoast, the land rises about 190 feet. Here if you proceed in a W. N. W. course from Charleston, commences a curiously uneven country. The traveller is constantly ascending or descending little sand hills, which nature seems to have disunited in a frolic. If a pretty high sea were suddenly arrested, and transformed into sand hills, in the very form the waves existed at the moment of the transformation, it would present the eye with just such a view as is here to be seen. Some little herbage and a few small pines grow even on this soil. The inhabitants are few, and have but a scanty subsistence on corn and sweet potatoes, which grow here tolerably well. This curious country continues till you arrive at a place called *The Ridge*, 140 miles from Charleston. This ridge is a remarkable tract of high ground, as you approach it from the

sea, but level as you advance northwest from its summit. It is a fine high, healthy belt of land, well watered, and of a good soil, and extends from the Savannah, to Broad river, in about 6 30 W. lon. from Philadelphia. Beyond this ridge commences a country exactly resembling the northern states, or like Devonshire in England, or Languedoc in France. The hills and dales, with all their verdure and variegated beauty, present themselves to the eye. Wheat fields, which are rare in the low country, begin to grow common. Here Heaven has bestowed its blessings with a most bounteous hand. The air is much more temperate and healthful than nearer to the sea. The hills are covered with valuable woods—the vallies watered with beautiful rivers, and the fertility of the soil is equal to every vegetable production. This, by way of distinction is called the Upper country, where are different modes, and different articles of cultivation; where the manners of the people, and even their language, have a different tone. The land still rises by a gradual ascent; each succeeding hill overlooks that which immediately precedes it, till, having advanced 220 miles in a northwest direction from Charleston, the elevation of the land above the sea-coast is found by mensuration to be 800 feet. Here commences a mountainous country, which continues rising to the western terminating point of this state.

The high hills of Santee in this belt, which are singular objects of curiosity, are an exception to this account. They are between 80 and 90 miles from the ocean, forming a ridge from 3 to 5 miles wide; they rise 300 feet above the adjacent level, affording from their summits a prospect 20 and 30 miles in extent. They are a mixture of sand, clay, and gravel; producing oak and hickory, and a profusion of underwood. These hills are among the most populous parts of the state.

In the western part of the upper country the hills swell into more towering heights, and gradually form the base of mountains, which divide this state from Tennessee, and the eastern waters from those of the Mississippi. See *Mountains*.

Soil and Agriculture.] The banks of the large rivers, both in the middle and lower divisions, are bordered with a belt of excellent land, covered natively with a growth of the heaviest timber, and producing from 50 to 70 bushels of maize, and 12 cwt. of cotton in the seed, to the acre. The marshes and swamps in these districts, and the borders of the inlets, bays, and creeks, are the seat of the rice plantations, and are generally productive. Some of the low grounds between the sand hills in the middle district are suitable for agriculture and pasturage. The soil on the hills of Santee is well calculated for upland cotton, indigo, and every kind of grain but rice. The two districts, with these two exceptions (and the exceptions bear but a small proportion to the whole extent) are, as has been already mentioned, a sandy barren soil, not worth cultivation or fencing. The soil of the upper country is generally strong and productive. It is a dark, fertile mould, resting gener-

ally on a stratum of reddish brown, tenacious clay, and sometimes on a stratum of marle.

Cotton, the great staple of the state, is of three varieties. The *black seed* cotton is grown on the sea islands and in the low country. It produces a fine, white fleece, of a silky appearance, very strong, and of a long, good staple. *Green seed* or *upland* cotton is principally cultivated in the middle and upper country; also, in the lower country, on some tide lands, and salt water marshes, after they have been effectually reclaimed. Its fleece is white, and good, but of a shorter staple, and inferior to the other; and it adheres so closely to the seed, that, till the invention of the cotton gin by Mr. Whitney, it was not worth cleaning, and none of it was exported. Since that time, it has become the great article of cultivation and export. That one invention has been of incalculable benefit to the southern states. It has made the poor comfortable, and those in moderate circumstances rich; and the whole country has been improved beyond all example. The *nankeen* cotton is grown chiefly in the middle and upper country, for family use. The color of the fleece is that of nankeen cloth, which it retains as long as it is worn. But little of this kind of cotton is raised. The growth of rice is confined almost exclusively to the low country; small quantities, for home consumption, are, however, raised in the midland swamps. The swamps on the bays, creeks, inlets, and rivers, which are overflowed by the tide, are the best rice lands; and the next to these are the inland swamps, with reserves of water. The best tide lands produce 2400 pounds of clean rice to the acre, and the tide plantations generally from 1200 to 1500 pounds. The inland plantations produce from 600 to 1500 pounds to the acre. The kinds of rice are the *white*, *gold Guinea*, *bearded*, *short-grained*, and *highland* rice.*

Rice ground is prepared only by effectually securing it from the water. It is sowed in the tide lands about the 20th of March, and in the inland swamps about the second week in April. The land is previously turned up with the plough or hoe, and then is drilled, by the same instruments, into trenches. In these the rice is sown from 1 to 2 bushels to the acre. The tide planters then flow the fields with water; keeping it on from 2 to 4 days. This kills the worms, and starts the grain, which appears 5 or 6 days after. It is commonly hoed 3 times during its growth; and, in the second hoeing, the grass is picked by the hand, from the trenches, and the rice is then overflowed from 10 to 20 days. As the water is drawn off gradually the plants branch; and on the number of branches depends the size of the crop, each branch producing one ear of from 100 to 300 grains. Three months after sowing, it begins to joint, blossom, and form the ear. It is then overflowed till harvest, which commences, near the sea, in the latter part of August, and in September, is general throughout the state. During

* Rice was introduced into Carolina, from Madagascar, by gov. Thomas Smith (whose descendants are among the most respectable people in the state,) about the year 1693.

this last overflow of the rice, the negroes are sent into the pine lands to split staves and heading for barrels. After harvest the rice is threshed, winnowed, beaten in mills, sifted, and packed in barrels.

Tobacco and indigo were formerly much cultivated in this state; at present very little attention is paid to them. The crop of maize, is large. It is cultivated in each of the three districts, but chiefly in the upper. The best lands, on the banks of the large rivers, yield from 50 to 70 bushels; the lands in the upper country, generally, from 30 to 50; those in the middle and lower from 10 to 30. The culture of grapes, figs, and of the olive have been partially introduced, and might be made productive. Hemp and flax are grown in the upper country, for domestic use. Wheat there yields 15 bushels; and in the best lands from 20 to 25. Barley has been successfully cultivated, and some exported. It has yielded from 50 to 70 bushels an acre. Silk was formerly raised to some extent near Puryburgh, and is still continued at New-Bordeaux, near Abbeville. Considerable tracts of land are devoted to pasturage in the upper country; and some lands near Charleston are laid down for mowing. Waggon are the carriages for heavy transportation in the middle and upper country; and ox carts in the lower. The enclosures throughout the state are generally of split rails; and are, what in New-England are called *Virginia fence*. In the low and middle country, they are made of pine, in the upper, of chesnut and oak.

The soil in the upper country is elevated and dry (except near the edges of the water courses) in the most rainy seasons. There is but little stagnant water in this region; the living springs are numerous, and their waters pure and excellent.*

Rivers.] Every part of the state is intersected with rivers. Its side which borders on the sea, is watered by the Waccamaw, Pedee, Black river, Santee, Wando, Cooper, Ashley, Stono, Edisto, Ashepoo, Combahee, Coosaw, Broad, and Savannah rivers. Some of these have two mouths, others have several heads or branches. The Santee, in particular, is formed by a junction of the Congaree and Wateree rivers. The same stream, which below is called Wateree passes in the upper country by the name of the Catawba. Congaree is formed by a junction of Broad and Saluda rivers. Broad river unites in its stream three rivers, the Enoree, the Tyger, and the Pacolet, and afterwards becomes a component part of the Congaree; which last named river, uniting with the Wateree, takes the name of Santee.

Most of these rivers have a margin of swamp, extending from half a mile to three miles. The short ones head in swamps, but the long ones in the mountains or other high grounds. They all run in a southeastern direction from their heads to the sea, which if extended, would cross the mountains and vallies in an acute angle to the south of east. Waccamaw river takes its rise in North-Carolina, and empties into Georgetown bay. Broad, Coosaw, Port Royal, and other short rivers, are merely arms of the sea. Their waters are

• Ramsay.

deep, and their navigation safe. Broad and Port Royal Rivers can safely and conveniently accommodate a large navy. They insulate a great part of Beaufort district, and by their windings and junctions form islands. These generally are suitable to the culture of cotton or indigo.

Wando river empties itself into Cooper about three miles above Charleston. It is navigable for about 20 miles and then heads in swamps. Cooper river rises in Biggen, and other swamps, and is about 1400 yards broad, where it empties itself into Charleston harbor. It is navigable by schooners and sloops to Watboo bridge, about 50 miles, and its eastern branch admits like vessels as far as Huger's bridge.

Ashley river originates in the cypress and other contiguous swamps, and, uniting with Cooper river, at White Point, forms Charleston harbor. Its navigation for vessels extends only a few miles, but for sloops and schooners as far as Bacon's bridge. Its width opposite to Charleston is about 2100 yards.

Stono river rises in swamps not far distant from the ocean, into which it empties itself between Kaywaw and Coffin land. Its navigation extends above Rantoul's ferry, and Wallace's bridge, but to no great distance.

Asheppoo river springs from swamps in the low country, and empties itself into St. Helena sound. Its navigation extends nearly the whole of its short course.

Combahee river originates in Salt Catcher swamp. Its navigation for schooners and vessels, is about 30 miles. It empties itself into the Atlantic ocean through St. Helena sound.

Black river takes its rise in the middle country from the high hills of Santee. It winds between Santee river and Lynche's creek, and having formed a junction with the Pedee, their united waters are emptied into Georgetown bay. Its navigation for schooners and sloops extends many miles up its stream, and for flat bottomed boats, flats, and rafts, as far as its forks.

Edisto river is too shallow to admit boats of heavy burden to any considerable distance. In a full river the navigation of its northern branch is open as far as Orangeburgh, and its southern branch is also navigable some miles, until it is interrupted by islands and shoals. When that river is low it is fordable at Parker's ferry, about 35 miles from the sea. This river takes its rise in the middle country from the ridge of highlands, which lies between the Congaree and Savannah rivers. These two last mentioned rivers, like all others which terminate in high lands, are subject to freshets.

Savannah river is bold and deep, and its navigation extends from the sea to Augusta for boats of 70 tons. At this place the falls of the river commence. Beyond it the navigation is continued for 60 miles to Vienna for boats of 30 tons or more.

The navigation of Santee river extends from the sea to the fork of the Congaree and Wateree rivers, thence up the Wateree to Camden on one side, and up the Congaree to Granby on the other, for boats of 70 tons. At these places the falls and rapids of the rivers commence; their upper branches are dispersed extensively over the

country.* Sometimes they are obstructed by rocks, but in general their current is gentle and deep. In light boats and full rivers several hogsheads of tobacco have been brought down their streams with safety.

The Pedee also stretches from the sea towards the mountains, through the northern part of the state. Its free navigation extends from the sea to Greenville for boats of 70 tons, and from thence to Chatham for boats of lesser draught. Here the navigation is impeded by rocks and shallows, although in full rivers boats of light burden descend with the stream from North-Carolina.

These large rivers, by innumerable tributary streams, spread themselves throughout all the upper country. Some of their branches are wider though shallower, than the rivers themselves. Kcovee, though 200 yards wide for several miles above its confluence with the Tugoloo, is the narrowest of these two streams whose united waters take the name of Savannah river. Hence when the accumulated waters of rain and snow pour down their channels, the adjacent low lands and intervals are overflowed with destructive freshets.

The natural advantages for mills and labor saving machinery, are great in most of the upper districts, but especially in those at a moderate distance from the mountains. The springs which gush from their sides after running 60 or 70 miles, become streams from 1 to 300 yards wide. These have many shoals where they spread wider, and are so shallow as to be generally fordable. In the intermediate spaces, the water is on an average from 8 to 10 feet deep. At many of these shoals the falls are sufficient with the aid of a small dam to impel the most weighty machinery. At some of them the falls are so great and abrupt as to admit 20 feet wheels upon the overshot construction without any, or at most very short, races : at others the ledges of rocks extending across the river form a natural dam quite sufficient for the obstruction of as much water as is required for working 1 or 2 mills. The artist has little to do but to erect his house and machinery. These places generally afford a sufficiency of durable materials for erecting the necessary buildings. They also frequently afford the rock out of which the mill stones are cut. Smaller streams, called creeks, take their rise at the foot of the hills : these are from 10 to 15 miles in length, and generally contain such a quantity of water as with the advantages of the falls which they afford, is sufficient to give activity to labor saving machines of the largest size.

Many of the branches that take rise from the springs at the foot of the hills, after running 2 or 3 miles, afford beautiful sites for the erection of similar works upon a smaller scale. Some of these are

* Broad river, one of the branches of the Congaree, is the northern and eastern boundary of Union district. The Euoree river is its western and southern boundary. Besides these two rivers, the Pacolet runs through its northern portion, and forms a confluence with Broad river at Pinckneyville. Tyger river runs through its southern portion, and forms a confluence with Broad river at its southeastern extremity. Fairforest creek, which from its size seems entitled to the appellation of river, takes rise in Spartanburg, and after running 25 or 30 miles nearly through the centre of Union, discharges itself into the north side of Tyger river.

now improved for the purpose of cleaning cotton with the saw-gin, and a few of them have also a pair of mill stones fitted up in the gin house, which, without manual labor, serve for grinding a sufficiency of grain for a distillery and for domestic consumption.

The common tides along the coasts of South-Carolina rise from 6 to 8 feet at neap tides, and from 8 to 10 feet at spring tides; they are however much influenced by wind; for a neap tide with a southeasterly wind is higher than a spring tide with a northeasterly one. Along the coast the depth of sea water is from 2 to 5 fathoms to a distance of some miles from the shore. In general the tides ascend the rivers, as far as 30 or 35 miles in a direct line from the ocean. This however is to be understood only in those rivers whose streams are not impetuous; for in the Santee the tides do not flow more than 15 miles in a direct line, and the salts are so kept back by the column of fresh water, continually flowing down, that except in times of great drought, they do not ascend further than 2 miles from the sea. When a drought prevails, they scarcely ever penetrate more than 3 or 4 miles in a direct line. The salts proceed further up Georgetown bay, and are sometimes injurious to agriculture 14 miles or more from the sea. The Savannah river partakes also of the same influences, and nearly in the same extent with Santee river.

Lakes.] Few lakes are to be found in South-Carolina: one however, situated in Barnwell district, presents a beautiful sheet of water near a mile in circumference.

Cascades.] Cascades are not found in the low country. There cannot be recollected a single instance of an overshot mill within 100 miles of Charleston, though one might be advantageously worked at each end of the Santee canal. There are many such in the upper country, and a few beautiful natural water falls. One of these is the precipice across Reedy river at Greenville court house. The perpendicular fall is 36 feet, and extends the whole breadth of the stream.

From the Glassey, Table, and Oolenoy mountains, streams of water, 15 or 20 yards wide, tumble into the vallies below, and in the whole of their passage dash upon and foam over rocks.

Nothing in South-Carolina is equal to the Catawba falls. They are situated above Rocky mount. Hills confine the descending stream as it approaches to them. When it advances nearer it is further narrowed on both sides by high rocks piled up like walls. The Catawba river, from a width of 180 yards, is straitened into a channel about one third of that extent, and from this confinement is forced down into the narrowest part of the river called the Gulf. Thus pent upon all sides but one, it rushes over large masses of stone, and is precipitated down the falls. Its troubled waters are dashed from rock to rock, and foam from one shore to the other; nor do they abate of their impetuosity till after they have been precipitated over 20 falls of a depth together very little short of 100 feet.

The scenery of these falls is sufficiently grand and interesting to attract the visits of the curious from a distance.

These falls greatly impede the water communication between the upper and lower country. To open it is the object of an incorporated company. See *Mountains*.

Harbors.] The only harbors of note are those of Charleston, Port Royal, and Georgetown. See the description of those places.

Mountains, Cataracts, and Springs.] "The western limits of Carolina so much resemble the apex of a triangle, the base of which is on the sea coast, that only 4 of the 25 districts into which it is divided can be called mountainous. These are the districts of Pendleton, Greenville, Spartanburg, and York. In that part of the state 7 or 8 mountains run in regular direction. Among them the Table mountain in Pendleton district is the most distinguished. Its height exceeds 3000 feet, and 30 farms may be distinguished at any one view from its top, by the unaided eye. Its side is an abrupt precipice of solid rock 300 yards deep, and nearly perpendicular. The valley underneath appears to be as much below the level as the top of the mountain towers above it. This precipice is called the lover's leap. To those who are in the valley it looks like an immense wall stretching up to heaven. At its base lie whitening in the sun the bones of various animals, who had incautiously advanced too near its edge. Its summit is often surrounded with clouds. The gradual ascent of the country from the seacoast to this western extremity of the state, added to the height of this mountain, must place its top more than 4000 feet above the level of the Atlantic ocean: an eminence from which vessels crossing the bar of Charleston might be seen with the aid of such improved glasses as are now in use. Large masses of snow tumble from the side of this mountain in the winter season, the fall of which has been heard 7 miles. Its summit is the resort of deer and bears. The woods produce mast in abundance. Wild pigeons resort to it in such flocks, as sometimes to break the limbs of the trees on which they alight.

The Oolenoy mountain is in the vicinity of the Table mountain. From it a cataract of water descends 6 or 700 feet. This forms the southern head branch of Saluda river.

The summit of the Oconee mountain, near the head waters of Keowee and Tugoloo rivers, is 5 or 600 yards above the adjacent country. From it there is a most beautiful prospect of Georgia and of the Cherokee mountains. The country between Oconee and Table mountain is generally wild, but all the vallies are highly cultivated. Some of them produce 100 bushels of corn to the acre. From the numerous settlements in them, and the hordes of children who rush from every cottage to gaze on travellers, it is apparently the most populous part of the state. When the country which is overlooked from these mountains is cultivated and adorned with villages and other embellishments, it will afford such brilliant prospects as may give full employment to the pencils of American artists. In this part of Carolina, Indians have resided for time immemorial. Here were situated their towns, Eseneka, Keowee, Eustaste, Foxaway, Kulsage, Oustinare, Socony, Estatoe, Warachy, Noewee, Concrass, Tomasse, and Cheokee, beside many others whose names are now forgotten. In the midst of them near the eastern bank of the

Keowee river stood fort George, in which a garrison was long continued for the protection of that part of the state. But time has swept away both the one and the other. A pellucid stream which meanders among these mountains makes 2 falls of nearly 50 feet each; then calmly flowing about 200 yards it is precipitated upwards of 80 feet. This last descent is extremely beautiful. The rock over which it tumbles is in the form of a flight of short steps. At its summit it is about 12 feet broad, but increases as it descends to 96. The protuberances, which resemble steps, break the current into a thousand streams. These pour in every direction, and cover their moss ground channels with foam. The original stream is small and turbulent. Although the weight of water is not great, it is so dissipated as to produce a most beautiful effect. About 4 miles from general Picken's farm there is another cataract; to approach which it is necessary for visitants occasionally to leap, crawl or climb. The mountains arise like walls on each side of the stream, which is choaked by the stones and trees that for centuries have been falling into it. The cataract is about 130 feet high, and some sheets of the stream fall without interruption from the top to the bottom. All the leaves around are in constant agitation from a perpetual current of air excited by this cataract, and causing a spray to be scattered like rain to a considerable distance. Another cataract may be observed descending from the side of a mountain about 6 miles distant. This is greater and more curious than the one just described.

Paris's mountain is situated in Greenville district; from it the Table mountain, the Glassey, the Hogback, the Tryon, and King's mountain are distinctly visible. Many farms are also to be seen from this beautiful eminence. The rocks on its southern side are adorned with the fragrant yellow honeysuckle. Reedy river is formed by the streams which flow from its surface. A spring impregnated with iron and sulphur issues from its side. This is said to cure ringworms and other diseases of the skin.

The Glassey and Hogback mountains are situated near the boundary line of Greenville and Spartanburg districts. Waters flow from them which form the sources of the Tyger and Pacolet rivers. These at their fountains are too cold to be freely drank in summer. On these mountains there are 4 or 5 snug level farms, with a rich soil and extensive apple and peach orchards. Cotton and sweet potatoes do not thrive thereon. The settlements are all situated on the south side, for the north is unfit for cultivation, on account of prodigious rocks, precipices, and bleak cold winds. Every part, even the crevices of the rocks, is covered with trees and shrubs of some kind or other. The chestnut trees are lofty, and furnish a quantity of excellent food for swine. In these mountains are several large caverns and hollow rocks, shaped like houses, in which droves of hogs shelter themselves in the great snow storms, which occur frequently in winter. The crops of fruit, particularly of apples and peaches, never fail. The climate in these mountains is less subject to sudden changes, than in the plains below. Vegetation is late, but when once fairly begun, is seldom destroyed by subsequent frosts. Neither are there any marks of trees being struck with

lightning, or blown up by storms. It is supposed that the mountains break the clouds, and that the lightning falls below ; for there the effects of it are frequently visible. On the Hogback mountain there is a level farm of 30 or 40 acres of the richest high land in South-Carolina. This is covered with large lofty chesnut trees, with an undergrowth of luxuriant wild pea vines, very useful for fattening horses. These animals, while there, are free from flies. The ascent to this mountain is very steep for about two miles ; but with the exception of 30 or 40 yards, expert horsemen may ride all the way to its summit. The prospect from it towards the N. and W. exhibits a continued succession of mountains, one ridge beyond another, as far as the eye can extend.

From a spring on one of the small mountains, between the Hogback and the Tryon, water is conveyed more than 1000 feet in a succession of wooden troughs, to the yard of a dwelling house built by Mr. Logan. It empties into a large reservoir from which, when filled, it runs over, and soon mingles with the adjacent N. Pacolet river, which is there a very small stream. Thus a great domestic convenience is enjoyed by a single mountaineer, which has not yet been obtained by the opulent city of Charleston.

On King's mountain, in York district, and in Spartanburg, the real limestone rock has been discovered.

Beautiful streams of water issue from these mountains, which are clothed to their summits with grass and tall timber. The intermediate vallies are narrow and fertile. Hence the pastoral life is more common, than the agricultural. The soil of the Table mountain is excellent ; that of the others is stony and less fertile. But chesnut, locust, pine, oak, and hickory trees grow on them. The champagne country, which becomes more level as it approaches the sea, affords an interminable view, finely contrasted with the wild irregularities of these immense heights, which diversify the western extremity of Carolina.*

Botany.] See this article in Georgia. There is no material difference in the climate or productions of these states.

The following exotic plants and trees have been naturalized : rice, cotton, tobacco, indigo, cow pea, long and round potatoe, wheat, rye, barley, buck wheat, Guinea corn, hemp, flax, turnips, melons, gourd, pompion, squash, tannier, cucumber tomata, apple, quince, pear, plum, apricot, peach, nectarine, sweet and bitter almond, olive, oleander, fig, pomegranate, okra, sweet and sour orange, lemon, lime, popniac, palma christi, tallow tree, pride of India, Lombardy poplar, flowering aloe, sweet myrtle, Cape jasmine, and weeping willow.

Zoology.] The quadrupeds of this state are the buffaloe, bear, panther, catamount, wildcat, wolf, beaver, red fox, red deer, otter, wild rat, mouse, black, red, gray, flying and ground squirrels, rabbit, polecat, mole, mink, opossum, racoon, lizard, toad, and frog. The birds are the bald eagle ; fisher, pigeon, gray and mallow-tailed hawks ; turkey buzzard ; crow ; large owl ; cuckoo ; parroquet ;

* Ramsay.

blue jay; purple jackdaw; red winged blackbird; ricebird; white, red and yellow-bellied, gold-winged, hairy and small spotted woodpeckers; great and small nutthatch; wild pigeon; turtle dove; may bird; robin; thrush; bullfinch; swamp and little sparrows; snow bird; mock bird; blue grosbeak; purple and painted finch; blue linnet; chatterer; blue bird; crested and black cap fly-catcher; summer red-bird; crested and yellow titmouse; pine and yellow throated creeper; humming bird; king fisher; killedeer; plover; hooping crane; blue and little white heron; crested bittern; common and black cormorant; white and brown curlew; oyster catcher; canda, small white brant, and great gray brant goose; duck and mallard; large black, bull-neck, round crested, summer, and little brown duck; blue and green, winged and white faced, teal; water pelican; wild turkey; pheasant; quail; wren; swallow; martin; whip-poor-will; snipe; woodcock; and marsh hen. The serpents are the common and small rattlesnake; water and black viper; copper-belly snake; bluish green snake; hognose snake; wampum snake; horn snake; black snake; little brown bead snake; ribbon snake; chain snake; coachwhip snake; corn snake; green snake; and glass snake. The insects are the earth worm, grub worm, snail, housebug, flea, wood worm, forty legs, wood louse, grasshopper, mantis, cockroach, cricket, beetle, fire fly, glow worm, butterfly, moth, ant, figeater, humble bee, ground bee, wasp, hornet, fly, musquito, sand fly, spider, tick and potatoe louse. The fresh water fish are the sturgeon, pike, trout, bream, mud fish, perch, sucking fish, cat fish, gar fish and rock fish; together with these kinds of shell fish, the soft shelled turtle, terrebin and cray fish. The fish on the shores are the shark, porpoise, drum, bass, cavalli, mapper, shad, sheepshead, whiting, poggy, black fish, mullet, herring, and skip-jack; and the oyster, crab, shrimp, and fiddler.

Mineralogy.] Iron ore of an excellent quality abounds in the upper country, particularly in the districts of Pendleton, Greenville, Spartanburg and York. Red and yellow ochres are found in York district; limestone at Eutaw springs, near Orangeburgh, and on the banks of Thicketty creek, also on King's mountains in York district; mill stones at Beaver creek on the Catawba; asbestos and slate near the head waters of Lynch's creek; a quarry of gray stone, resembling freestone, at Beaver creek; soap stones in York district; rock crystal, white flint, fuller's earth and emery, occasionally in the middle and upper country; marle in the lower; lead ore of a rich quality, in the Cherokee mountains; copper ore in several places.

Mineral Waters.] Pacolet springs, on the west bank of Pacolet river, are impregnated with sulphur and iron, and cure rheumatisms and cutaneous disorders. Others, with similar properties and virtues, are in the Catawba reservation; on a branch of Waxaw creek; on the east side of Paris's mountain; in the forks of Lynch's creek; and in Richland district near rice creek. There are numerous springs, around Little-Salt-Catcher swamp, in Orangeburgh district, which cure sores and pains in the body. Eutaw spring, near Nelson's ferry, rises through an opening in the earth of a few inches diameter; and immediately forms a basin several feet deep, and 650 feet in

circuit. The water has a purgative effect, but is feebly marked with mineral properties.

Natural Curiosities.] On a hill on Flat creek, a western branch of the E. fork of Lynch's creek, there is a singular cavern, called the Rockhouse. It is about half way up the hill, and is composed of two immense flat rocks, which lean against each other, like the roof of a house, and shelter an area of about 90 feet in circuit. A cascade passes beneath them. In the neighborhood, in a valley, lies the Great Flat rock, covering 50 acres. On the E. side of this hill there are two caverns in the rock, one which reaches in upwards of 200 yards. Its walls are highly polished, and appear to be a dark brown marble. Probably it was once the passage of a stream of water.

Islands.] The seacoast is bordered with a chain of fine sea islands, around which the sea flows, opening a convenient inland navigation, for the conveyance of produce to the market.

North of Charleston harbor, lie Bull's, Dewee's, and Sullivan's islands, which form the north part of the harbor. James island lies on the other side of the harbor, opposite Charleston, containing about 50 families. S. W. is John's island, larger than James; Stono river, which forms a convenient and safe harbor, divides these islands. Edisto island is 40 miles S. W. of Charleston; 12 miles long, and from 1 to 5 broad, containing about 29,000 acres. It was settled about the year 1700, by emigrants from Scotland and Wales. Till the year 1796, the principal produce from the culture of this island was indigo, with some rice, corn, potatoes, &c. Since this period, cotton has been substituted for indigo. In favorable years, more than 750,000 pounds of net cotton wool are raised. The cotton crops yield annually about 30,000 bushels of cotton seed, which makes excellent manure. In 1808, there were on this island 236 white inhabitants, and 2600 slaves. The inhabitants are Presbyterians and Episcopalians; the former are the most numerous, and have a church here, which has permanent funds, in bonds bearing interest, and rents, yielding an annual income of \$3,276, for the support of the gospel.*

On the southwest of Edisto lies a cluster of islands, among which are Port Royal, St. Helena, Ladies, Paris, and the Hunting islands, 5 or 6 in number, bordering on the ocean, so called from the number of deer and other wild game found upon them. All these islands, and some others, of less note, belong to St. Helena parish.

Crossing Broad river, you come to Hilton Head, the most southern sea island in Carolina. West and southwest of Hilton Head, lie Pinckney's, Bull's, Dawfuskies, and some smaller islands, between which and Hilton Head, are Calibogie river and sound, which form the outlet of May and New rivers. Pinckney's island has Port Royal harbor on the N. and is about 9 miles in circumference. Lat. 32 12 N. This island is the property of Gen. CHARLES COTESWORTH PINCKNEY, and the place of his residence from November to June, and contains 2 large plantations, on which are cultivated cotton, potatoes, corn, oats, &c.

* Rev. Mr. McLeod, in Ramsay's History of South-Carolina.

The soil on these islands is generally better adapted to the culture of indigo and cotton than the main, and less suited to rice. The natural growth is the live oak, so excellent for ship timber ; and the palmetto or cabbage tree, the utility of which, in the construction of forts, was experienced during the late war.

GEORGIA.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT, BOUNDARIES, DIVISIONS, NAMES, HISTORY, ANTIQUITIES, RELIGION, GOVERNMENT, POPULATION, INDIANS, MILITIA, MANNERS AND CUSTOMS, LITERATURE, CHIEF TOWNS, ROADS, BRIDGES, INLAND NAVIGATION, MANUFACTURES, COMMERCE.

Extent.] THIS state lies between lat. 30 42 and 35° N.; and between lon. 80 20 and 86° W. Its length is 270 miles. Its breadth, at Savannah, is 250 ; on the southern boundary, 170 ; and on the northern, 120. It contains about 62,000 square miles.

Boundaries.] On the N. by the parallel of 35° which divides the state from Tennessee and North-Carolina, till it strikes the head waters of Savannah river ; on the N. E. by Savannah river, which separates it from South-Carolina ; on the E. by the Atlantic ; on the S. by Florida ; and on the W. by Alabama. The western, is more minutely, for a little distance the river Tennessee ; then a straight line, commencing at the Indian town of Nickajack, on that river, and passing in a direction nearly S. E. by S. till it meets the Chatahouche, at the mouth of a small river, in lat. 31 N.

Divisions.] That part of the state, which is settled, is divided into 4 districts, and 38 counties.

Eastern District.

Counties.	Free persons.	Slaves.	Towns.
Wayne	422	554	Court House
Camden	1,254	2,687	St. Mary's
Glynn	572	2,845	Brunswick
M-Intosh	782	2,954	Darien
Liberty	1,420	4,808	Riceborough
Bryan	563	2,264	Hardwick
Bulloch	1,879	426	Halesburgh
Effingham	1,576	1,010	Ebenezer

Counties.	Free persons.	Slaves.	Towns.
Chatham	3,792	9,748	Savannah
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Total 9	12,260	27,296	
Middle District.			
Columbia	5,262	5,980	Applington
Warren	5,677	3,048	Warrenton
Jefferson	3,775	2,336	Louisville
Burke	6,167	4,691	Waynesborough
Scriven	2,661	1,816	Jacksonborough
Washington	6,427	3,513	Saundersville
Montgomery	2,207	747	Court House
Tatnal	1,664	542	Do.
Richmond	2,753	3,436	Augusta
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Total 9	36,593	26,109	
Western District.			
Hancock	6,874	6,456	Sparta
Oglethorpe	6,862	5,435	Lexington
Clarke	5,034	2,594	Athens
Jackson	8,753	1,816	Jeffersonton
Franklin	9,159	1,656	Carnesville
Elbert	7,582	4,574	Petersburg
Lincoln	2,343	2,212	Lincolnton
Wilkes	7,603	7,284	Washington
Walton	966	60	
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Total 9	55,175	32,087	
Southern District.			
Jones	6,010	2,587	Clinton
Jasper	5,752	1,821	Monticello
Morgan	5,951	2,418	Madison
Greene	6,443	5,236	Greenesborough
Putnam	6,809	3,220	Eatonton
Baldwin	3,809	2,550	MILLEDGEVILLE
Wilkinson	1,836	318	Irwinton
Laurens	1,725	485	Dublin
Telfair	526	218	Telfairton
Pulaski	1,565	528	Hartford
Twiggs	2,763	642	Marion
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Total 11	43,189	20,023	

Counties formed since the census of 1810, Emanuel, and Madison. Total 40.

This state is entitled to 6 representatives to congress.

The eastern district comprehends the seacoast; the southern lies W. of it; the middle lies N. of the southern, and N. W. of the eastern; and the western N. W. of the middle.

Names.] The French and Spaniards early gave the name of *Florida* to a large undefined tract of country, reaching northward

from the gulf of Mexico. The English, at the same time, gave it the name of *Virginia*, and *South-Virginia*. The name of *Carolana* was given, in 1630, to all the country south of lat. 36° ; and that of *Carolina* to the country between 36° and 31° N. in 1663. This state was included under each of these territories. Its present name was given to it in 1732, in honor of George II.

History.] The early history of this state may be seen under that of South-Carolina, of which it was a part.

In 1732, the country between the Savannah, and Alatomaha* was granted by George II. to Gen. Oglethorpe and others. He with 40 others landed at Yamacraw bluff, the site of the city of Savannah, on the 1st of February, 1733. They immediately selected the present site of Savannah for the place of a town, and erected the first house on the 9th. In 1736, two considerable colonies of Scotch and Germans were brought over by Gen. Oglethorpe, who immediately erected several fortifications. The Spaniards in Florida, taking umbrage at this, invaded the colony, in 1742, but accomplished nothing. Ten years afterwards the trustees surrendered the province to the king, and it soon began to flourish. A general court was established in 1755.

In 1763, George III. annexed the country between the Alatomaha and St. Mary's to the province.

Georgia, in 1775, acceded to the union of the colonies and sent deputies to the congress.

In February, 1777, the first state constitution was adopted, and the then existing parishes were formed into counties.

The country was invaded, in 1778, by a body of troops from Florida, who burned a few buildings, and carried off some property; and, soon afterwards, by a British army under Col. Campbell, who took Savannah, Dec. 29. Count D'Estaing made an unsuccessful attempt to retake it in October, 1779. The town and state were evacuated by the enemy in July, 1782.

The second constitution was adopted in May, 1785, and amended in May, 1789.

In 1795, the legislature sold, to several companies, about 22,000,000 acres of the western territory for \$500,000, which was paid into the treasury. The original purchasers soon after sold it, at an advanced price, to various gentlemen, chiefly in the middle and eastern states. The next year, the succeeding legislature declared the sale unconstitutional, and ordered the records of it to be burnt; but kept the money.

In May, 1798, the present constitution was adopted.

In 1802, by a treaty held at fort Wilkinson, on the Oconee, the Creeks ceded to the United States (which has been since ceded to Georgia) a large tract of country, embracing the S. W. corner of Georgia.

Antiquities.] On the west bank of the Alatomaha, ten or twelve miles above its mouth, and nearly opposite Darien, are to be seen the remains of an ancient fortification: it is now a regular tetragon

* Pronounced *Altamahaw*.

terrace, about four feet high, with bastions at each angle : the area may contain about an acre of ground, but the fosse which surrounded it is nearly filled up. There are large live oaks, pines, and other trees, growing upon it, and in the old fields adjoining. It is supposed to have been the work of the French or Spaniards. A large swamp lies betwixt it and the river, and a considerable creek runs close by the works, and enters the river through the swamps, a small distance above Broughton island.

About 70 or 80 miles above the confluence of the Oakmulge and Oconee, the trading path from Augusta to the Creek nation crosses these fine rivers, which are there 40 miles apart. On the east banks of the Oakmulge, this trading road runs nearly 2 miles through ancient Indian fields, which are called the Oakmulge fields ; they are the rich low lands of the river. On the heights of these low grounds are yet visible traces of an ancient town, such as artificial mounds or terraces, squares, and banks encircling considerable areas. Their old fields and planting land extend up and down the river, fifteen or twenty miles from this site. And, if we are to give credit to the account the Creeks give of themselves, this place is remarkable for being the first town or settlement, in which they *set down*, (as they term it) or established themselves, after their emigration from the west, beyond the Mississippi, their original native country.

On the banks of Little river, in the upper part of the state, are several curious and stupendous monuments of the power and industry of the ancient inhabitants of this country. Here are also traces of a large Indian town.

Religion.] The inhabitants of this state, who profess the Christian religion, are of the Presbyterian, Episcopalian, Baptist, and Methodist denominations. The two latter are much the most numerous. There are but few settled ministers in this state. In many destitute towns, the inhabitants are desirous of enjoying the stated ordinances of the gospel, and would cheerfully give a liberal support to a pious and learned ministry. Missionaries are every where well received, and listened to with interest and respect.

Government.] The legislature is styled *the general assembly*, and consists of a senate and house of representatives. The senate are chosen annually by counties, one from each. A senator must be 25 years of age, possessed of a real estate of \$500, or pay taxes for \$1000 within the county, and have been a citizen of the United States 9 years, and of this 3, and have resided within the county the year preceding. The representatives are chosen annually by counties ; each sending at least one, and none more than four. A representative must be 21 years of age ; possessed of a freehold worth \$250, or of \$500 taxable property, within the county, and have been a citizen of the United States 7 years, and of this 3, and have resided the preceding year in the county. The assembly meets annually, on the second Tuesday in January.

The governor is chosen for two years, by the general assembly. He must have been a citizen of the United States 12 years, and of

this state 6 years; must be 30 years of age; and possessed of 500 acres of land and other property to the amount of \$4000. In case of his absence, resignation or death, the president of the senate is governor *pro tempore*. All persons, 21 years of age, who have paid taxes one year, and resided in the county the 6 months previous to the election, are voters.

The judicial power is vested in a superior court, composed of 4 judges, one in each district, who are appointed for 3 years, and hold, each, a court in one of the districts twice a year; in an inferior court in each county, sitting twice a year, and consisting of 5 judges who are also judges of the courts of ordinary or probate; and in justices courts, sitting once a month, and consisting of a single justice of the peace; who summons 7 jurors, tries all cases not exceeding 30 dollars, and holds jurisdiction in criminal cases over slaves. Other criminal cases are tried only by the superior court. Two justices of the peace are appointed for each captain's district.

Population.] The population of Georgia was in the year

1749	6,000	1800	101,068 whites	
1790	52,886 whites		59,699 slaves	162,686
	29,264 slaves		1,919 free bl.	
	398 free bl.	1810	145,414 whites	252,433
			107,019 slaves	
			1,801 free bl.	

The items of the census of 1810 were as follow :

	white males.	white females.	total.
Under 16 years of age	39,953	37,520	77,473
Between 16 and 45	28,407	25,811	54,218
45 and upwards	7,485	6,238	13,723
Total	75,845	69,569	145,414

The increase in the number of whites during the last 10 years was 46,147, or 45 $\frac{3}{4}$ per cent.; that of the blacks was 45,401, or 73 $\frac{1}{2}$ per cent. The whites were greatly increased by immigration. The importation of slaves, during the whole of this period, was forbidden.

Indians.] The *Creeks* or *Muskogees*, inhabit the western part of Georgia, and are the most numerous tribe on this side of the Mississippi. They are composed of various hordes, who, after a series of bloody wars, united against the Choctaws. The names of these various tribes were Apalachees, Alibamas, Abecas, Cawittaws, Conshacks, Coosas, Coosactees, Chacsihoomas, Natchez, Oakmulgees, Oconees, Okohoyas, Pakanas, Taensas, Talepoosas, Wecktumkas, and some others. Their union rendered them victorious over the Choctaws, and formidable to all the other tribes. Their whole number in 1786, amounted to 17,280; of whom 5,860 were fighting men. They are a well made, hardy, sagacious and politic people; extremely jealous of their rights; and averse to parting with their lands.

In 1796, Col. Hawkins was appointed superintendant of Indian affairs S. of the Ohio. Great praise is due to this gentleman for his judicious, benevolent, and persevering exertions to meliorate the condition of these Indians. He has spent most of his time since the period above mentioned, in drawing them off from a savage state, and in introducing among them the various arts of civilized life. They now cultivate tobacco, rice, maize, potatoes, beans, peas, and cabbages; and raise plenty of peaches, plums, grapes, strawberries, and melons. They have abundance of tame cattle, hogs, turkies, ducks, and other poultry. The loom, the wheel, the anvil, and many other mechanical implements are usefully established among them; and their children are now regularly taught reading, writing, and arithmetic.

The country which they formerly claimed, extended from Florida to lat. 34° N.; and from the Tombigbee to the Atlantic ocean; they have ceded the part on the seacoast, by different treaties, to the state of Georgia. Their principal towns lie in lat. 32° and lon. 11 20 W. from Philadelphia. They are settled in a hilly, but not mountainous, country. The soil is fruitful in a high degree, and well watered, abounding in creeks and rivulets, whence they are called the *Creek Indians*.

Militia.] There were in 1810, 25,729, and 1817, 27,484 men on the militia rolls in this state, in general badly armed and disciplined.

Manners and Customs.] No general character will apply to the inhabitants at large. Collected from different parts of the world, as interest, necessity, or inclination led them, their character and manners must of course partake of all the varieties which distinguish the several states and kingdoms from whence they came. There is so little uniformity, that it is difficult to trace any governing principles among them. An aversion to labor is too predominant, owing in part to the relaxing heat of the climate, and partly to the want of necessity to excite industry. An open and friendly hospitality, particularly to strangers, is an ornamental characteristic of a great part of this people.

The evils of slavery are felt here, and by many lamented, in common with all the low country south of Delaware state.

A considerable number of gentlemen, of respectable characters, have for some time past exerted themselves in behalf of the unfortunate blacks, and a degree of infamy is now attached to the character of the man who is guilty of cruelty towards them.

Literature.] The legislature, in 1785, incorporated what is called the *University of Georgia*, which went into operation in 1803. It consists of a college, now called *Franklin College*; and of an academy, established, or to be established, in each county. This body of institutions is under the direction of a senatus academicus, consisting of the governor and senate of the state, for the time being, and 15 trustees. The immediate government and instruction are conducted by a president, 4 professors of languages, mathematics and natural philosophy, of moral philosophy and astronomy, of chemistry, and 2 tutors. The number of students is small, not ex-

ceeding 50. A brick edifice of 3 stories, capable of accommodating 100 students, and a chapel, houses for the president and steward, have been built. Its funds are respectable \$100,000 are in bank stock, beside 50,000 acres of land; \$12,000 are appropriated to the purchase of a library, and apparatus.

The senate of the university appoints a board of commissioners in each county, to superintend the academy of the county and the inferior schools. This board receives its instructions from the senate, and is accountable to it. The rector of each academy is an officer of the university; and is appointed by the president, with the advice of the trustees, and commissioned under the public seal.

Public property, to the amount of 1000*l* has been set apart, in each county, for building and furnishing an academy. In the year 1817, \$200,000 were appropriated by the legislature for the establishment of free schools throughout the state.

Chief Towns.] SAVANNAH is built on a sandy bluff, 40 feet above low water mark, and 18 miles from the bar at the mouth of the river, lat. 32, 18 N. lon. 81, W.* The river runs N. of this bluff close to the town; on the S. lies a level sandy pine barren, two miles across; on the E. and W. are extensive fresh marshes, which are flowed every tide, and were excellent rice plantations. These rendered it very unhealthy. A remedy has been provided against these evils. The town is laid out in the form of a parallelogram; and contains 10 public squares of one acre, at equal distances from each other, inclosed and planted with trees, and having wells with pumps in the centre. Two rows of trees are, also, set out in most of the streets; and avenues of trees extend, on the N. and S. sides of the city, the whole length of it. The public buildings are a Presbyterian, Episcopalian, Methodist, Baptist, Lutheran, and Catholic church, and a synagogue; a court house, a prison on the S. common, 3 stories high, with 6 rooms on a floor, and passages of 20 feet wide; an exchange, on the centre of the bluff, 5 stories high, with a steeple and clock, a heavy gothic building; an almshouse and marine hospital, at the W. end of the town; an academy, on the S. side, 180 feet by 60, and 3 stories high; and barracks, on the E. side, 270 feet long with 32 rooms, calculated for the accommodation of 500 troops. Here are 3 banks. The new Presbyterian church, is built of stone, from a quarry on Middlesex Canal, Massachusetts, hewn and fitted at the state's prison in Charlestown, and thence conveyed by water to Savannah. There is a strong well built battery on the S. side of the river, at five fathom hole, 3 miles below the town, calculated for 12 guns. Several useful societies have been lately established in this city, which do credit to the benevolence and liberality of the citizens. The population of the city in 1787, was about 2300; in 1800, 5146; and in 1810, 2490 whites, 2195 slaves, and 530 free blacks: in all 5215; in 1819, upwards of 8000. There are 1200 dwelling houses, and about 1800 buildings of other descriptions. This city is the centre of the trade of the state, and owns 15, or 14,000

* Melish's Map of the United States.

tons of shipping. Its grand staples are cotton, rice and tobacco. In 6 months, ending March, 30, 1818, there were shipped for market about 62,000 bales of cotton, 14,000 tierces of rice, and 1500 hogsheads of tobacco. Large vessels receive their cargoes 3 miles below the city, at 5 Fathom Hole; vessels drawing 14 feet water come up to the city wharves. Fort Jackson, on Tybee Island, where is the light house, at the mouth of the river, and Fort Wayne at 5 Fathom Hole, defend the harbor.

AUGUSTA was laid out, in 1735, by Gen. Oglethorpe, and from that period has been a place of considerable and increasing trade. It is built on a fine plain, on the S. W. side of the Savannah river, where it is 500 yards wide, and deep enough for boats of 50 tons. The streets are wide, and cross each other at right angles. The public buildings are 4 churches, for Presbyterians, Methodists, Catholics, and Episcopalians, an academy, court house, jail, a market, and 5 banks. There are (1819) about 4500 inhabitants. Large quantities of cotton, and some tobacco, are purchased here, and boated to Savannah, from which city it is distant 127 miles by land N. W. In lat. 33 19 N. lon. 80 46 W.

SUNBURY is a small seaport, about 40 miles S. from Savannah, and has an academy and a safe and convenient harbor. It is a pleasant healthy town, with few inhabitants.

MILLEDGEVILLE, the seat of the state government, is in Baldwin county, on the S. W. bank of the Oconee, 160 miles W. N. W. from Savannah, and 87 W. S. W. from Augusta. Lat. 32 50 N. lon. 83 15 W. The river is navigable to this place for boats of 30 tons. Quantities of cotton, corn, and some tobacco are exported by boats from this place to Darien and Savannah. The state house, on a high eminence, is an elegant building. Here is a house for the governor, an arsenal 58 by 28, 3 stories high, (building in 1819,) an academy, 2 houses for religious worship, for Baptists and Methodists, a state penitentiary, court house and jail. The vicinity is fertile and populous; this town has (1819) about 2500 inhabitants, and is increasing. A shoal opposite this town, is famous for the quantity and quality of the shad caught on it.

ATHENS, on the N. side of the N. branch of the Oconee, in Clarke county, is 200 miles W. N. W. of Savannah, lat. 33, 48 N. lon. 83 20 W. and has about 300 inhabitants. It is the seat of the university. See article *literature*.

FREDERICA, on the island of St. Simon's, lat. 31 15 N. was built by Gen. Oglethorpe, in 1734. The fortress was regular and handsome, composed of tabby,* and is now in ruins. The town contains but few houses, which are also built of tabby. It is fronted by a large navigable river, which enters the ocean at the south end of the island. It communicates with the Alutamaha, and forms part of the inland navigation. This river seems formed for ship building. A safe harbor, deep channel, fine bluffs, surrounded with live oak and every other description of timber, and is withal said to be a healthy place.

* A mixture of oyster shells and lime.

LOUISVILLE, formerly the seat of government, in Jefferson county, near the Ogechee river, contains about 100 dwelling houses. The state house is a large brick building, now used as a masonic hall. It is 108 miles N. W. of Savannah, 52 S. from Augusta, and 50 E. of Milledgeville. It contains 524 inhabitants, including slaves.

ST. MARY'S is in Camden county, at the S. W. extremity of the state, and of the United States, on the N. bank of St. Mary's river, which separates it from Florida. It has a good harbor, and vessels drawing 17 feet water can be brought to the wharf. It was scourged with the yellow fever in 1808, though its inhabitants in general are healthy. The situation is low and the high spring tides overflow a considerable portion of the town. It contains 585 inhabitants, and is 130 miles S. S. W. of Savannah. Lat. 30 45 N. lon. 80 24.

DARIEN is on the N. branch of the Altamaha river, on the N. bank, in McIntosh county, 12 miles from the bar. A fort was built at this place, by Gen. Oglethorpe, in 1736, and the town was settled by Scots Highlanders. A canal was cut through an island for the passage of boats, to facilitate the communication with Frederica. The town stands on a high sandy bluff, and promises, from the rapid increase of the back country, to be a place of much importance. A bank, with a capital of \$150,000 was established here in 1818. Forty houses (for stores and dwellings, some of the latter large and elegant,) were erected here in three months, in 1818. The rise of town property in value, particularly wharf-lots, has been very great. Every exertion is making to remove the temporary obstructions to a foreign export from thence, of the produce sent down the Oconee, Ocmulgee, and Altamaha rivers, which has hitherto been compelled to seek a more distant market, solely at the expense of the planter. Milledgeville and Darien are identified in one common interest, and must fade, or flourish, together. Here is a Presbyterian church, and a printing press, from which is issued a weekly paper. It is 60 miles S. W. of Savannah, and contained, in 1810, 206 inhabitants; now, (1819,) probably between 1 and 2000.

PETERSBURG is on the eastern extremity of Elbert county, at the junction of Broad and Savannah rivers, 55 miles W. of Augusta, and is a place of considerable trade, and the improvement of the navigation from thence to Augusta will increase its importance. It contained, in 1810, 332 inhabitants.

Roads.] Little attention was formerly paid to roads in this state. A turnpike has been constructed over the dismal causeway on Ogechee river, on the great road from Savannah to Sunbury and St. Mary's. A road from fort Hawkins to fort Stoddart, through the Indian territory, was completed in the autumn of 1811. The great northern road of the U. S. passes through Augusta, Milledgeville, and thence through Alabama and Mississippi to New-Orleans.

Bridges.] There is a good bridge across the Ogechee, at the causeway mentioned in the above article, which yields a handsome

Income to its proprietor. There are a few others in different parts of the state ; but there is yet room for great improvements.

Inland Navigation.] The coast of Georgia, as is that of all the southern states, is lined with islands, between which and the main land. boats, and in many parts, vessels of considerable burden may pass in safety, without going out to sea. The rivers, which intersect this state in all directions, render it convenient for the inhabitants in all parts to convey their produce to market. Large sums have recently been appropriated by the state, for the purpose of rendering all the larger rivers navigable.

Manufactures.] The following articles were manufactured in 1810. The nominal value of each is annexed.

Cotton cloth	yds. 3,591,612	\$1,745,806 00
Cotton and wool	441,205	275,761 25
Woollen	5,591	4,192 25
Cotton and flax	10,722	8,051 50
Linen	1,790	1,790 00
Cotton bagging	9,463	5,593 37½
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Total, yards of cloth,	4,060,383	\$2,041,194 37½
Rum, peach brandy, } gin, and whisky }	galls. 545,122	408,841 50
Tanned hides	17,521	70,084 00
Beer	barrels 1,878	11,268 00
		<hr/>
		\$2,533,387 87½

Sugar is now manufactured to a considerable extent in the low country. The inhabitants, in the interior, are in the habit of manufacturing their clothing and bedding for common use. This practice is becoming general near the coast. The estimated value of the manufactures of this state in 1810. was \$3,658,481.

Commerce.] The exports from the state, in 1810, amounted to \$2,444,631 17. The following were the important articles.

Upland cotton	lbs. 9,282,711	\$1,407,406 65
Sea island do.	2,523,331	756,999 30
Stained do.	83,605	12,540 75
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Total	11,889,647	\$2,176,946 70
Rice	tierces 10,588	190,504 00
Lumber		23,559 56
Tobacco	hhds. 283	10,980 00
Canes	(1000) 608½	3,649 20
Deer skins	lbs. 12,120	3,030 00
Maize	bushels 2,730	2,047 50
Hogs	300	1,800 00
Flour	barrels 190	1,520 00
Tar	do. 564	1,128 00

Beef	barrels	106	1,060 00
Indigo	lbs.	788	788 00

In 1811, the exports amounted to \$2,568,866 ; in 1817, to \$8,790,714.

Georgia, like North-Carolina and Virginia, owns comparatively but few tons of shipping, in 1816, 13,299 tons. Most of her foreign merchandize is procured from New-York, Philadelphia, Baltimore, and Charleston, particularly from the first and last of these cities. Cheese, fish, potatoes, apples, cider, and shoes are procured chiefly from New-England. Savannah is the principal seaport. Darien is becoming a rival.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE, FACE OF THE COUNTRY, SOIL AND AGRICULTURE, RIVERS, SWAMPS, BAYS, MOUNTAINS, BOTANY, ZOOLOGY, MINERALOGY, MINERAL SPRINGS, NATURAL CURIOSITIES, ISLANDS.

Climate.] **TILL** within 8 or 10 years, the months of July, August and September, in the flat country, were denominated the *sickly season*. The summers, since that time, have been cooler ; and epidemic fevers have raged chiefly in the autumnal months, which are now justly entitled to the distinction of the sickly months. These fevers have many of the symptoms of the yellow fever ; and those who recover from them, look as if their skins had been dyed by a strong decoction of saffron. They are more fatal than the fevers of South-Carolina, and much fewer of the inhabitants are exempted from their attacks. Strangers who spend the sickly season in the flat country, frequently fall victims to them.

The disorders of the clime originate partly from the badness of the water, which, in the low country, is generally brackish ; and partly from the noxious vapours, which are exhaled from the stagnant waters, and putrid matter in the rice swamps. The long continuance of warm weather also produces a general relaxation of the nervous system ; and, as a great proportion of the inhabitants have no necessary labor to call them to exercise, indolence is the natural consequence ; and indolence, especially amongst a luxurious people, is ever the parent of disease. The immense quantities of spiritous liquors, which are used to correct the brackishness of the water, form a species of intemperance, which too often proves ruinous to the constitution. Parents of infirm, sickly habits, often, in more senses than one, have children of their own likeness. A considerable part of the diseases of the present inhabitants may therefore be considered as hereditary.

Before the sickly season commences, many of the rich planters of this state remove with their families to the sea islands, or some elevated healthy situation, where they reside three or four months, for the benefit of the fresh air. In the winter and spring, pleurisies, peripneumonies, and other inflammatory disorders, occasioned by sudden and violent colds, are considerably common, and frequently fatal. Consumptions, epilepsies, cancers, palsies, and apoplexies, are not so common among the inhabitants of the southern as northern climates.

The winters in Georgia are very mild and pleasant. Snow is seldom or never seen. Vegetation is not frequently prevented by severe frosts. Cattle subsist tolerably well through the winter, without any other food than what they obtain in the woods and savannas, and are fatter in that season than in any other. In the hilly country, which begins about 50, and in some places 100 miles from the sea, the air is pure and salubrious, and the water plenty and good. From June to September, the mercury in Fahrenheit's thermometer commonly fluctuates from 76° to 90°. In winter, from 40° to 60°. The most prevailing winds are southwest and east; in winter northwest. The east wind is warmest in winter and coolest in summer. The south wind, in summer and fall particularly, is damp, sultry, unelastic, and of course unhealthy.

In the southeast parts of this state, which lie within a few degrees of the torrid zone, the atmosphere is kept in motion by impressions from the trade winds. This serves to purify the air, and render it fit for respiration; so that it is found to have a very advantageous effect on persons of consumptive habits.

Face of the Country.] From the ocean, for the distance of 7 miles, there is a margin of islands and marshes, intersected by rivers, creeks, and inlets, communicating with each other, and forming a complete inland navigation, for vessels of 100 tons, along the whole coast. The sea islands consist of a species of land called *hammock*, which produces the black-seed cotton, and of salt marsh. A narrow margin, on the coast of the main, consists also of *hammock* lands and salt marshes. Immediately back of this commence the pine barrens, interspersed with numerous inland swamps. The rivers and creeks have, also, near their mouths, marshy lands, called *brackish swamps*, and higher up, *river-tide* swamps, which are entirely fresh. Both of these, and the salt marshes, are overflowed partially or wholly at the return of the tide. The pine barrens reach from 60 to 90 miles from the coast. Within that distance, however, the pines become of a more vigorous growth, and the level is occasionally broken; but the hills are mere sand hills. Beyond this commences a country resembling the middle country of South-Carolina; except that large bodies of oak and hickory lands are interspersed among the lands covered with pine. The hills are higher, and more steep and sudden. Sand, however, is the common covering of this country also; which, when examined by the microscope, is found to have every appearance of sea sand; the angles and asperities being wholly worn off by friction. This tract of country is from 30 to 40 miles wide, and terminate at the lower falls of the rivers, as at Augusta on the

Savannah. A new feature, also is presented in this region. A large bank of oyster shells and other marine substances is found on the Savannah, 15 miles below Augusta, the direction of which is nearly parallel with the coast. A similar bank is found near Louisville on the Ogeechee, and at Long Bluff on the Oconee. It is supposed that these are merely parts of one continuous bank; and that it stretches the whole length of the state, in a N. E. and S. W. direction. It is also believed by many, that the country below this bank has been gradually gained from the ocean, and that the original line of the coast may now be traced in this bank of oyster shells. In the Gulf Stream there are generally no soundings, and it is every where much deeper than the surrounding waters. It may not be improper to suggest whether this river of the ocean, as it scooped out its broad unfathomable channel, has not thrown up the unnecessary sands on the American coast, and thus formed the low country of the south, and of New-Jersey, the barrens of Long island, the sand hills of Cape Cod, and the banks of Newfoundland.

At the termination of this tract commences a more desirable region. Here the long leaved pines disappear, and the short leaved commence; but the oak and the hickory are the common growth. Farther back at Washington and Greensborough, the fertile lands are again broken by black-jack, chesnut, and pine ridges, which become more frequent and extensive near the mountains. The only tract, that can be called mountainous, is close to the northern line of the state, near Tennessee. It will be observed that nothing is here said of the country S. W. of the Oakmulge and Alatamaha, except near the sea. Almost the whole of this is occupied by Indians, and has not been thoroughly explored.

Soil and Agriculture] The lands in the upper country are of four sorts. The best are the *low grounds*. These lie on rivers and creeks; and have a soil, that is a mixture of rich black mould with a small quantity of fine sand. They produce abundantly maize, potatoes, pumpions, melons, peas, beans, hemp, flax, tobacco, cotton and all kinds of vegetables. In some instances 100 bushels of maize have been raised to the acre. The natural growth of this land is walnut, oak, hickory, poplar, and ash; and the underwood is the cane and wild pea-vine, which disappear soon after the country is settled. Land of the second quality, called *mulatto-land*, has a fine dust of a reddish, yellow colour, approaching to a clay. The natural growth is oak, hickory, dogwood and poplar. It bears wheat, rye, oats, barley and all the productions just recited, abundantly; but its crops suffer seriously from a drought, and from much rain. Crab-grass grows on it in great abundance, and is frequently cut and cured for hay. *Gray-land* is of the third quality. The soil is a mixture of gray mould, with a small portion of coarse sand, on a foundation of clay. Its productions are the same with those of the mulatto-lands, but less plentiful. It is not, however, so liable to be affected by the extremes of wet and dry weather. The natural growth is oak, hickory and short-leaved pine, with underwood of the same species. The fourth quality, called *barrens*, is poor and chiefly unproductive. It yields, however, great quantities of coarse grass in summer,

affording abundant pasturage for cattle and sheep. The soil is a mixture of sand, gray earth, clay and pebbles ; interspersed with quarries of stone and rocks. The natural growth is the black-jack, chesnut, chinquapin and short-leaved pine. These four descriptions of land are found in the western district, and in the upper half of the middle and southern, composing about half of the settled parts of the state. The other half of the state, including the eastern district, and the low country of the middle and southern, consists almost wholly of pine barrens. The country, here, is a plain of sand, and the natural growth is the long-leaved pine, with a thick covering of poor coarse grass ; on which, large droves of cattle are turned out, in the winter, to browse for subsistence. The inland swamps, which are here frequent, are generally beds of sand covered with a thin black soil ; the natural growth of which is ash, black gum, oak, cypress and bay, with almost impenetrable shrubbery, some canes and a little grass. Ponds in this region are also numerous, and sometimes cover 50 acres. They are thickly grown over with cypress trees, and margined with high sedgegrass. The *low lands* on the rivers in the lower parts of the middle and southern districts, are less productive than those higher up ; the black mould having a greater proportion of sand intermixed with it. Some tracts of *mulatto* and *gray lands* are found in this last mentioned region. The *low lands* and *river-tide* swamps, near the shore, have great quantities of very large timber, of almost all the kinds already named ; together with the live-oak, cabbage-palmetto, and magnolia. Most of these lands are devoted to rice, but black-seed cotton and hemp grow equally well, and are beginning to be extensively cultivated on them. The extensive *salt marshes*, on the sea islands and on the main, have not as yet been improved ; but it is conjectured that the *barilla cotton* would succeed, especially where samphire is a spontaneous growth. The best staple of the black-seed cotton has succeeded well on the *brackish swamps* on the Savannah and Altamaha.

The table of exports exhibits, at once, the state of the agriculture, as to the proportional cultivation of each article.

On the dry plains, grow large crops of sweet potatoes, which are found to afford a wholesome nourishment, and from which is made, by distillation, a kind of whisky, tolerably good, but inferior to that made of rye. It is by properly macerating and washing this root that a sediment or starch is made, which has obtained the name of sago, and answers all the purposes of the India sago.

Indigo was formerly cultivated in this state to a considerable extent, but has given place to cotton. The manner in which the indigo was cultivated and manufactured, follows : the ground, which must be a strong rich soil, was thrown into beds of 7 or 8 feet wide, after having been made very mellow, and was then raked till it was fully pulverized. The seed was then sown in April, in rows at such a distance as conveniently to admit of hoeing between them. In July, the first crop was fit to cut, being commonly two and a half feet high. It was then thrown into vats, constructed for the purpose, and steeped about 30 hours ; after which the liquor was drawn off into other vats, where it was *beat*, as they call it, by

which means it was thrown into much such a state of agitation as cream is by churning. After this process, lime water was put into the liquor, which causes the particles of indigo to settle at the bottom. The liquor was then drawn off, and the sediment, which was the indigo, was taken out and spread on cloths, and partly dried; it was then put into boxes and pressed, and while it was yet soft, cut into square pieces, which were thrown into the sun to dry, and then put up in casks for the market. They had commonly three cuttings a season. A middle crop for 30 acres was 1300 pounds.

Rivers.] The Savannah is the N. E. boundary * The Tennessee touches the N. W. corner of the state. The Alatomaha runs its whole distance in Georgia. The Alabama rises in Georgia. The Chatahouche rises in the state and is for a considerable distance its western boundary. These have already been described.

The Ogechee heads in Greene county, 170 miles from the ocean, and 50 from Savannah river. It winds in a southeasterly direction, about 200 miles; and empties into Hassabaw sound, a little north of the island of St. Helen's, and 15 S. W. of the Savannah.

Satilla river heads near the waters of Flint river, and pursues a crooked course, in an E. S. E. direction, to the Atlantic. It runs about 190 miles, and discharges its waters against Cumberland island.

St. Mary's river, the Indian Locklaculco, and a part of the southern boundary of the United States, heads in Okelonoke swamp. It issues from the swamp, on the south side, near the centre; and, at first takes a southern direction, for a considerable distance; then, after, bending eastward, turns to the N. and proceeds as far as lat. 30 40. Its course is thence, nearly due E. for 60 miles to the ocean, into which it empties between Amelia and Cumberland islands. For the last 30 miles, it has a wide open marsh on each side; above, its banks are covered with a thick forest. Its whole length is about 150 miles. The immense quantity of water, which, in wet weather, finds its way from the swamp through the St. Mary's to the ocean, is the best solution we have of the extraordinary depth of that river. Its water is every where deep enough for navigation; even so far up that the banks are too near together to admit the passage of a vessel. Probably no river in the world incloses such a depth of water in so narrow a channel.

Crooked river, Turtle, Sapello, Newport and Little Ogechee are primitive rivers of a much smaller size.

Flint river rises in the country of the Creeks. It runs S., and then S. W. more than 200 miles; and in the S. W. corner of the state, discharges its waters into the Chatahouche, which here takes the name of the Apalachicola. It flows through a very rich and fertile country. The Creeks have numerous villages on its banks. The head-waters of the Okfuskee, and the Coosa, which form the Alabama, are in the mountainous country of Georgia.

* See S. Carolina, Art. *Rivers*.

Broad river, Little river, and Briar creek are the chief western tributaries of the Savannah.

The Ohoopée is an eastern branch of the Alatomaha; and the Little Satilla, of the Satilla.

Swamps.] Okefonoco is an Indian word, and means *living ground*, or *shaking ground*. This swamp has been said to be 300 miles in circumference, but is not in fact more than 180. From it, is formed the two rivers called by the Indians Locklacufco, or St. Mary's, and Alopahaw, or St. Juan. The gentleman who furnished this article* penetrated this swamp on foot about 10 or 12 miles. About $\frac{1}{4}$ of it is Baygall swamp, so thick with under growth and bamboo briars, as to be almost impenetrable. The remainder, cypress ponds, some spots of rich hammuck and pine barren land, and of the latter there is no doubt so much that a passage might be found quite through the swamp, dividing those ponds connected with the sources of the two rivers before mentioned. The only inhabitants of which there were any traces, were alligators, snakes, frogs, and insects; of these there were abundance. The fabulous story of Mr. Bartram, of its being inhabited by beautiful women, or any of the human race, must have been imposed on his credulity by some sagacious Indian, who found him inquisitive, and wished to excite his curiosity in such a way to escape immediate detection. "The large portion of vegetable putridity and stagnant waters fully exposed to the heat of the sun, furnishes such a manufactory for musketoes, as to give them a *warrantee title* over the soil of *Mr. Bartram's Paradise*." The number of these insects, and the large portion of poisonous vapour produced in warm weather, render it uninhabitable by any human being. From the best information that can be obtained, this swamp is about 60 miles in length, from E. to W. and 40 in breadth. St. Mary's river comes out on the south side near its centre, and St. Juan a little south of the W. end.

There is another swamp called Cypress swamp, between Flint and Satilla river, of which we have no accurate information.

Bays.] There are numerous bays or sounds along the coast, between the islands and the main; the names and situation of which are best learned from the map.

Mountains.] Cunaw-hee mountain is the southern termination of the Blue ridge. It rises, like a sugar loaf, out of the rich plains of Franklin county, and is about 1500 feet above the level of the sea. It is about 60 miles from the N. line of the state. The ridge north of it is much lower. The country below it gradually descends into hills, towards the head waters of the Oconee, Oakmulgee, and Chatahouche river. Westward of this range are some high lands, which occasionally rise to the elevation of mountains.

Botany.] For an account of the forest trees see *face of the country and soil*. The mulatto and gray lands produce immense quan-

* Capt. Hugh M'Call.

tities of fine peaches, which are cultivated for the manufacture of peach brandy. Apples, pears, and cherries are also raised, but with less success. The mulberry tree grows well, and is every where productive. On the pine barrens are raised the finest grapes in the union. For size and flavor they would be pronounced excellent by a native of Madeira. They may be raised in any quantities; and the only trouble necessary is elevating them from the ground. Those in Bulloch county are the finest, and at present the most abundant. The melons of Georgia are of a superior kind. The fine tropical fruits, and other plants, are cultivated with success on the coast, particularly on the southern half of it. The sweet oranges of Georgia and East-Florida are not inferior to those of the West-Indies. The orange, lemon, citron, pomegranate, Indian fig, arrowroot, and sugarcane, find here a genial climate. The almond tree has been introduced, with prospect of success, on a plantation near Augusta, within a few years.

Zoology.] Alligators abound in the rivers of Georgia, and there are great numbers of reptiles, many of a venomous kind. The number of frogs is also prodigious. Mosquitoes swarm, like the flies of Egypt, around the swamps and low grounds. The cochineal insect is found in great numbers on the leaves of the cactus opuntia, on the southern part of the coast. In July they propagate quickly, and at the approach of colder weather, withdraw to the under side of the leaf for a shelter during the winter. See this article in S. Carolina.

Minerology.] In the county of Washington, 12 miles from Milledgeville, is a large hill of yellow ochre. Several experiments have been made upon it, which justify the assertion, that for the fineness and softness of its particles and the beauty of its color it is not exceeded by any imported.

Mineral Springs.] In the county of Wilkes, within a mile and a half of the town of Washington, is a medicinal spring, which rises from a hollow tree, four or five feet in length. It is said to be a remedy for the scurvy, scrofulous disorders, consumptions, gouts, and other diseases arising from humours in the blood. It is now in little repute.

Cobb's mineral springs are situated in the county of Jefferson, and are famed for their medicinal virtues. In the summer they are a place of resort; 30 or 40 houses, or cabins of logs, are built for the accommodation of visitors.

The most noted spring in Georgia, is found in Madison county, about 6 miles E. of Danielsville. It is a common resort for the people from the low country during the sickly months. A large commodious building has been prepared for the accommodation of visitors.

Natural Curiosities.] Rock spring, in Montgomery county, about 100 feet from the Oconee, on the east side, is surrounded by an extensive cane swamp. It is 30 feet deep, and gushes from a cavity in the rocks, of 3 feet diameter, producing about 50 hogsheads of water in a minute. This water is remarkably clear and well tasted,

Three or four large rock fish are constantly seen sporting at the bottom, and 50 or 60 at the mouth of the creek from 2 to 4 feet in length. There are 2 or 3 smaller springs, like this, on the opposite side of the river.

There is a curious cave, in the same county, between Saundersville and the Oconee. It is 70 or 80 feet long, and about 30 or 40 deep. At the bottom, there are two cavities, entirely distinct from each other. One of them is a large natural well, with much water at the bottom, and is supposed to be upwards of 150 feet deep. The other is more superficial, but opens into a vault 25 or 30 feet in circumference.

In the N. W. corner of the state, within half a mile of the Tennessee river, is Nickojack cave. It commences in a precipice of the Rackoon mountain, with a mouth 50 feet high, and 160 wide. Its roof is formed by a solid and regular layer of limestone, having no support but the sides of the cave, and as level as the floor of a house. From its entrance the cave consists chiefly of one grand excavation through the rocks, preserving for a great distance the same dimensions, as at its mouth. What is more remarkable still, it forms, for the whole distance it has yet been explored, a walled and vaulted passage for a stream of cool and limpid water, which, where it leaves the cave, is 6 feet deep, and 60 feet wide. Col. Ore, of Tennessee, explored this cave a few years since. He says, that he followed the course of the creek, in a canoe, for three miles within the cave, and was prevented from proceeding further by a fall of water. On the floor of the cave near its mouth, are found large quantities of an earthy substance, from which saltpetre is obtained. This circumstance is said to be common to the caves of the western country, and is ascribed to the decomposition of animal substances, perhaps the bodies of men, who died or were buried there. It is certain, that the Indians used these caves for burial places, and continue the practice to this day. At Nickojack, there has been a considerable manufacture of saltpetre from this earth, for several years.*

Tockoa creek springs from the N. side of the Cunaw-hee mountain, and about 5 miles from it in a N. W. direction, forms a handsome basin, of considerable depth. The water of this basin flows through a short channel, about 20 feet wide, and a few feet deep, scooped out of solid rock. At the lower extremity of this channel, the stream is precipitated 187 feet over the rock, which is a smooth and absolutely perpendicular precipice. The water shoots over the rock, and never touches it afterwards, but, gradually expanding itself in the air, at length falls, in the form of fine rain, into the deep basin below. The water, however, forms an almost entire sheet, when the creek is swollen by rain.

Islands.] These are numerous; beginning at the north with Tybee island, on which is a light house, and proceeding southwardly we pass Wassaw, St. Helen's, St. Catherine's, Sapelo, on which also is a lighthouse, St. Simon's, Jekyl, Cumberland and Amelia. On St. Simon's island is the town of Frederica, founded by Gen. Ogle-

* Silliman's Journal of Arts and Sciences.

thorpe, and was one of the first towns built in Georgia. The fortress erected at its first settlement is still to be seen, though in ruins. A branch of the Alatamaha runs on the west of the island and forms a bay before the town, affording a safe harbor for vessels of the largest burthen.

Cumberland island is very pleasantly situated at the mouth of St. Mary's river. This charming spot produces in abundance almost every useful vegetable, beside oranges, lemons, almonds, figs, and all the other tropical fruits. On this island is the delightful seat of Mrs. Miller, the former relict of general Greene.

FLORIDA.*

CHAPTER I.

HISTORICAL GEOGRAPHY.

EXTENT AND SITUATION, BOUNDARIES, DIVISIONS AND GOVERNMENT, NAME, HISTORY, RELIGION, POPULATION, TOWNS, COMMERCE.

Extent and Situation.] THIS Territory of the United States is 400 miles long, from Cape Sable, to St. Mary's river; and 340 broad, from the Atlantic to the Perdido river, which separates it from Alabama. It lies between lat. 25° and 31° N. and lon. 80° 30' and 87° 15' W.

Boundaries.] Bounded N. by Georgia and Alabama; W. by Alabama, and the gulf of Mexico; S. and E. by the Atlantic ocean.

Divisions and Government.] While the Floridas belonged to Spain, they were divided into two provinces, E. and W. Florida, each of which had its own government, and both were within the jurisdiction of the Captain General of Cuba, and of the audience of the Havanna. Since the cession of this territory to the United States, "all the military, civil, and judicial powers, exercised by the Spanish officers before the cession, are vested by act of Congress, (Mar. 3, 1819,) in such person or persons, and to be exercised in such manner, as the President of the United States shall direct, for the maintaining the inhabitants of said territory in the free enjoyment of their liberty, property and religion; and the laws of the United States, relative to the collection of the revenue, and the importation of persons of color, are extended to said territory." This state of things was to commence when the king of Spain had ratified the treaty of cession, and continue till Congress shall establish a different form of government.

Name.] Juan Ponce de Leon gave the country the name of *Florida*, "because" says Purchas, "it was first discovered on Palm Sun-

* What was formerly *West Florida*, now makes a part of the states of Alabama, Mississippi, and Louisiana, except the small section between Apalachicola and Perdido rivers.

day, or Easter day, which the Spaniards call *Pasqua Florida*; and not, as Thevot writes, for the flourishing verdure thereof." Peter Martyr agrees with Purchas. The Spaniards long applied the name to the whole North-American coast.

History.] Sebastian Cabot discovered the country in 1497. Ponce sailed along the eastern coast in 1512, and going on shore, April the 2d, took possession in the name of the king of Spain. The first attempt to settle it, was made in 1524, by Luke Vasquez; the second, in 1528, by Pampilo de Narvaez, who had received a grant of the country from Charles V.; the third by Ferdinand de Soto, governor of Cuba, in 1539; who landed with 600 men, and 200 horses, and travelled westward; passed the second winter among the Chicasaw Indians; thence crossed the Mississippi, proceeded to Red river, where he died,* and the fourth by John Ribault, a Frenchman in 1562. Pedro Melandez, a Spaniard, broke up the French settlement in 1565; and Dominique de Gourgues, a soldier of Gascony, drove away the Spaniards in 1568. The king of France disowning the acts of De Gourgues, the French soon quitted the country, and the Spaniards re-occupied it.

In 1763, it was ceded to Great-Britain in exchange for the Havana. West Florida was taken by the Spaniards, in 1781, and both countries ceded to Spain in 1783. In February 1819, both the Floridas were ceded to the United States, by Spain, though a great part of W. Florida, had been claimed by the United States, under the treaty of 1803. The possession of this territory, and the extension of our western boundary to the Pacific ocean, gives a proper shape to our country, and it makes a well proportioned and beautiful map. The possession of Florida will be of incalculable advantage to the U. States. The Island of Cuba is in sight from some parts of it; it has good harbors for commerce—a good soil, in many parts for agriculture, and will furnish abundance of the tropical fruits, and productions.

Religion.] There are few churches or clergy of any denomination in this country. The prevalent form of the Christian religion is that of the Roman Catholic. The whole country is proper missionary ground.

Population.] The number of Spaniards and creoles is very small, probably not more than 20,000 in both provinces; the wandering Creeks, or Seminoles, possess most of East Florida.

Towns.] ST. AUGUSTINE, one of the principal towns of Florida, stands on the E. or Atlantic coast, lat. 29 45 N. lon. 81. 05 W. It is of an oblong figure, intersected by 4 streets at right angles. The town is fortified, has a church and monastery, and about 3000 inhabitants. The breakers at the entrance of the harbor have formed 2 channels, whose bars have 8 feet water each.

NEW-SMYRNA, in East-Florida, is situated on a shelly bluff, on the W. bank of the S. branch of Musquito river, about 10 miles above the capes of that river, lat. 29 02 N. It is inhabited by a

* Williamson's Hist. N. Carolina, p. 16.

colony of Greeks and Minorquies, established by Dr. Turnbull. When Mr. Bartram visited it, it was a thriving town.

ST. MARKS is a small seaport town, near the mouth of a river of that name, which empties into the gulf of Mexico, lat. 30. N. lon. 84° 15' W.

PENSACOLA is the principal town in the W. part of Florida. The harbor is on the N. shore of the gulf of Mexico, 11 leagues E. of Port Lewis and Mobile, and 158 W. of the islands of Tortuga. It is a beautiful body of water, spacious, and safe from all winds, and has 4 fathoms at its entrance, deepening gradually to 7 or 8. The bar lies in lat 30 18 N. and lon. 87 17 W.* And admits of vessels drawing no more than 21 feet water. Pensacola, lying along the beach of the bay, is of an oblong form, healthy and delightfully situated, and is about a mile in length, and $\frac{1}{2}$ of a mile in breadth. While in possession of the British it contained several hundred habitations; and many of the public buildings and houses were spacious and elegant. The governor's palace is a large stone building, ornamented with a tower, built by the Spaniards. After this place came into possession of the Spaniards, it declined. The town and fort of Pensacola surrendered to the arms of Spain, in the year 1781, and with them the whole province. The old fortifications stood on some sand hills back of the city, too distant to yield any substantial protection. While this town was in possession of Great-Britain, its exports in skins, logwood, dying stuff, and silver dollars, amounted to £63,000 sterling, and the average value of imports from Great-Britain for 3 years was £97,000. It is now becoming a place of great resort, and extensive trade. The entrance into the bay is defended by a small fort on the W. end of Rose's island and a battery nearly opposite, on the main land. The Coencuh is the largest river which falls into the bay.

Commerce.] The trade of the eastern part of Florida centres in St. Augustine, that of the western part, in Pensacola. See the last article.

CHAP. II.

NATURAL GEOGRAPHY.

FACE OF THE COUNTRY, SOIL, PRODUCTIONS, AND BOTANY, RIVERS, LAKES, BAYS, ISLANDS, MINERALOGY, AND SPRINGS.

Face of the Country.] A RIDGE of low hills runs through the peninsula of Florida; but both coasts are level and low for a considerable distance. There is a little upland near the northern boundary.

Soil, Productions, and Botany.] There is in this country, a great variety of soils. The eastern part of it, near and about St. Augustine, is by far the least fruitful; yet even here two crops of Indian corn in a year are produced. The banks of the rivers which water Florida, and the parts contiguous are of a superior quality, and

* Elliott.

well adapted to the culture of rice and corn, while cotton, coffee and sugar, may be raised on other soils, in abundance. The interior country is high and pleasant, abounding with wood of almost every kind; particularly white and red oak, live oak, laurel magnolia, pine, hickory, cypress, red and white cedar. The live oaks, though not tall, contain a prodigious quantity of timber. The trunk is generally from 12 to 20 feet in circumference, and rises 10 or 12 feet from the earth, and then branches into 4 or 5 great limbs, which grow in nearly a horizontal direction, forming a gentle curve. "I have stepped," says Bartram, "above 50 paces on a straight line, from the trunk of one of these trees to the extremity of the limbs." They are ever green, and the wood almost incorruptible. They bear a great quantity of small acorns, which make an agreeable food when roasted, and from which the Indians extract a sweet oil, which they use in cooking homminy and rice.

The laurel magnolia is the most beautiful among the trees of the forest, and is usually 100 feet high, though some are much higher. The trunk is perfectly erect, rising in the form of a beautiful column, and supporting a head like an obtuse cone. The flowers are on the extremities of the branches. They are large, white, and expanded like a rose, and are the largest and most complete of any yet known; when fully expanded, they are from 6 to 9 inches diameter, and have a most delicious fragrance. The cypress is the largest of the American trees. "I have seen trunks of these trees," says Bartram, "that would measure 8, 10, and 12 feet in diameter, for 40 and 50 feet straight shaft." The trunks make excellent shingles, boards, and other timber; and, when hollowed, make durable and convenient canoes. "When the planters fell these mighty trees, they raise a stage round them, as high as to reach above the buttresses; on this stage 8 or 10 negroes ascend with their axes, and fall to work round its trunk."

The intervals between the hilly parts of this country are extremely rich, and produce spontaneously the fruits and vegetables that are common to Georgia and the Carolinas. But this country is rendered valuable in a peculiar manner, by the extensive ranges for cattle.

Both East and West Florida, which are ceded by the late treaty, are less valuable to the U. States on account of their productions, than on account of their commodious harbors, and extensive sea coast, which will accommodate a vast and thrifty back country, watered by the numerous navigable rivers which pass through the Floridas into the Gulf of Mexico.

Rivers.] St. John's river rises in a large swamp near the centre of the peninsula, and pursues a northerly course to the Atlantic, emptying 31 miles north of St. Augustine. It is a broad, navigable stream, frequently expanding into lakes. The largest of these, lake George, is 15 miles broad, and 15 or 20 feet deep. Vessels drawing 9 or 10 feet water may navigate the river as far as the head of the lake. There, as the river enters it, it forms a bar with only 8 feet water. It is ornamented with several charming islands, one of which is a mere orange grove, interspersed with magnolias and

palm trees. Here are marks of a large town of the Aborigines. Many small rivers, which fall into the Atlantic, east, and the gulf of Mexico, west, water the peninsula of Florida; among which are Greenville and St. Lucia, on the east, and North Charlotte, Delaware, &c. on the west. St. Marks rises in Georgia, and falls into Apalachy bay.

The Apalachicola, formed by the junction of Chatahouche and Flint rivers, falls into St. George's sound, the western part of Apalachy bay, by three mouths. The western is the main channel, in lat. 29 44 38 N.

The Coenecuh empties into the west end of Pensacola bay. It has been incorrectly called Escambia; which is only a small tributary, falling into the Coenecuh from the west, 25 miles above the head of the bay. The Coenecuh rises in Alabama, in which it runs a considerable distance, and is navigable for small craft. Perdido is a short river, which rises in Alabama, and forms the dividing line between this new state and Florida.

Bays.] There are no bays of note on the E. side of the peninsula. Passing W. round Cape Sable, you enter Chatham bay, which is spacious, between lat. 25° and 26°. Farther N. is Charlotte harbor, at the mouth of the river of this name. Further still is Spiritu Santo bay, at the mouth of Hillsborough river. It has a good harbor. Next is St. Joseph's bay, at the mouth of Amagura river. Apalachy bay is on the W. side of the peninsula of Florida, and in the N. E. corner of the gulf of Mexico. It may be considered as setting up between cape St. Blas on the N. W. and another cape on the S. E. but its limits as a bay are not very distinctly marked. On the western side, a little N. E. of cape St. Blas, lie several islands in a chain parallel with the coast. The sheet of water between these islands and the main is called St. George's sound, after the name of the largest island; and stretches from S. W. to N. E. about 40 miles, with a breadth of 6 or 8.

St. Joseph's bay, a little to the W. is formed by a sand-bar, which sets up in a N. N. W. direction, from cape St. Blas, about 20 miles. From the point of this bar the bay sets up in a S. S. E. direction about 15 miles.

St. Rose's bay opens into the gulf, between the E. end of St. Rose's island, and a long sand-bar, which separates the bay from the gulf. It stretches eastward from the entrance upwards of 30 miles.

Pensacola bay is irregular in its shape, and sets up northward about 25 miles. The mouth, at the W. end of St. Rose's island, is narrow, has 21 feet depth over the bar, and is protected by a fort on the point of the island.

The mouth of Perdido bay is about 8 miles farther W. The bay sets up a considerable distance, and has a very narrow entrance.

Capes.] On the Atlantic coast, proceeding from N. to S. is Cape Caneveral, lat. 28° 45' N. next Cape Florida, lat. 26° N. then Cape Sable, lat. 25°, which forms the S. point of the peninsula. Then Cape Roman, on the gulf of Mexico, lat. 25. 50. Cape St. Blas, W. of Apalachy bay.

Mineralogy and Springs.] Limestone and iron ore are found on the banks of the Apalachicola. Near Long lake, which is 4 miles long and 2 wide, and which communicates with St John's river by a small creek, is a vast fountain of warm, or rather hot mineral water, issuing from a bank on the river. It boils up with great force, forming immediately a vast circular basin, capacious enough for several shallops to ride in, and runs with rapidity into the river, three or four hundred yards distant. The water is perfectly clear; and the prodigious number and variety of fish in it, though many feet deep, appear as plainly as though lying on a table before your eyes. The water has a disagreeable taste, and a smell like that of bilge water.

Islands.] St. Rose's island is every where narrow, and reaches from Pensacola to St. Rose's bay, about 45 miles. A narrow sound separates it from the main. St. George's islands are 6 leagues long, and of considerable breadth. These islands and the coast are in many places covered with forests of live oak. Newcastle island is S. of Cape Sable. Amelia island, off the N. E. corner of Florida, lies about 7 leagues N. of St. Augustine, and very near Talbot island on the S. at the mouth of St. John's river. It is 13 miles long and 2 broad, is very fertile, and has an excellent harbor. Its N. end lies opposite Cumberland island, between which, and Amelia isle, is the entry into St. Mary's river, in lat. $30^{\circ} 52'$ N. lon. $81^{\circ} 20'$ W.

Talbot is a small island a little south of the above.

ALABAMA.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT, BOUNDARIES, DIVISIONS AND POPULATION, NAME, HISTORY, RELIGION, GOVERNMENT, LAWS, MILITIA, FORTS, BANKS, MANNERS AND CUSTOMS, LITERATURE, CITIES AND TOWNS, ROADS, MANUFACTURES, COMMERCE, REVENUE.

Extent.] THIS state lies partly on the N. shore of the gulf of Mexico, between lat. 30 and 35 N. lon. 85° and $88^{\circ} 10'$ W. Length from N. to S. about 360 miles, breadth about 200, containing 72,000 square miles, or 46,000,000 acres.*

Boundaries.] The act of Congress establishing this state, bounds it as follows:—"Beginning at the point where the 31st degree of N. lat. intersects the Perdido river, thence E. to the western boundary line of the state of Georgia, thence along said line, to the southern

* Mellish's Map.

boundary of the state of Tennessee, thence W. along said line, to the Tennessee river, thence up the same to the mouth of Bear creek, thence by a direct line to the northwest corner of Washington county, thence due south to the gulf of Mexico; thence, eastwardly, including all the islands within six leagues of the shore, to the Perdido river, and thence up the same to the beginning." This state has Georgia on the E. Tennessee on the N. Mississippi on the W. and the gulf of Mexico on the S.

Divisions and Population.] This state is divided into 22 counties, which, with their population, are as follows :†

	No. of free Inhabitants.	No. of Members to the State Legislature.
Madison	8780	8
Limestone	3473	3
Lauderdale	1698	1
Franklin	2253	2
Lawrence	—	2
Cotaco	2101	2
Marion	—	1
Blount	3229	3
Tuskaloosa	2365	2
*St. Clair	—	1
Shelby	3237	2
Cahawba	1031	1
Marengo	1164	1
Montgomery	3464	2
*Autauga	—	1
Dallas	1320	1
Monroe	4307	4
Conecuh	1692	1
Clark	2674	2
Washington	2147	2
Baldwin	504	1
Mobile	982	1
Total	45,871	44

The following is the total amount of souls in this state, agreeably to the late census :

White males over 21 years	9974
White males under 21 years	14,749
White females over 21 years	7549
White females under 21 years	13,599
Total of whites	45,871
Free people of color	339
Total of slaves	21,384
Total of inhabitants	67,694

No returns from Lawrence and Marion counties.

† The counties marked thus (*) have their population included in the counties from which they were recently taken.

The free population of Lawrence is estimated at 2000, and of Marion 1000. The ratio of representatives in the legislature, is fixed at one member for every 1000 free inhabitants.

Name.] This state takes the Indian name of its principal river.

History.] This state was a part of Georgia, till 1800, when, with what is now the state of Mississippi, it was established by act of Congress, as a separate government, by the name of the Mississippi Territory.

In 1817, it was separated from Mississippi, (which was erected into a state), and became a territorial government; and on the 3d of March, 1819, became one of the United States.

Government.] No constitution has yet been adopted by this state. The act of Congress, which admits this state into the Union, on an equal footing with the original states, authorises the citizens of Alabama, to form for themselves a constitution, and determines the qualifications, and the number, of representatives to the general assembly from the several counties; 44 in the whole. Until the next census shall be taken, this state is entitled to one representative in Congress.

Militia.] The militia of this state is not yet organized. Its number can be estimated only from the number of its inhabitants.

Forts.] St. Stephens' Fort stands on the west bank of Tombigbee river, in lat. $31^{\circ} 33' N$. Fort Claiborne is on Alabama river, in Monroe county, about 26 miles E. of St. Stephens, at the head of sloop navigation. Fort Bowyer is on Mobile point, opposite Dauphin and Pelican islands, which are W. of it. The principal entrance into Mobile Bay is under this fort. Fort Conde is at the town of Mobile, lat. $30^{\circ} 40' N$. Fort Stoddart is on the W. bank of the Mobile river, just below the junction of the Tombigbee and Alabama rivers.

Banks.] There are two banks in Alabama, at Huntsville and St. Stephens.

Manners and Customs.] These are mixed and various, according to the manners and customs of the states and nations from which these new settlers have been collected. They have not been together a sufficient time, to form a regular and uniform character.

Literature.] The act of Congress constituting this state, reserves, on certain conditions, section No. 16, in every township, for the use of its schools. It also provides, "that 36 sections, or one entire township, to be designated by the secretary of the treasury under the direction of the president of the U. States, together with the one heretofore reserved for that purpose, shall be reserved for the use of a seminary of learning, and vested in the state legislature, to be appropriated solely to the use of such seminary. The secretary of the treasury under the president's direction, may reserve the 72 sections, or townships, set apart for the support of a seminary of learning, in small tracts; provided that no tract shall consist of less than 2 sections, and, that the said convention shall provide by an ordinance irrevocable, without the consent of the U. States, that the people inhabiting the said territory, do agree and declare that they forever disclaim all right, and title to the waste, or unappropriated lands, ly-

ing within the said territory ; and that the same shall be, and remain, at the sole and entire disposition of the U. States ; and moreover, that each and every tract of land sold by the U. States, after the first day of September, 1819, shall be, and remain, exempt from any tax laid by order, or under the authority, of the state, whether for state, county, township, parish, or any other purpose whatever, for the term of 5 years from the day of sale ; and that all navigable waters within the said state shall forever remain public highways, free to the citizens of the said state, and of the U. States, without any tax, duty, impost or toll therefor imposed by the said state.* Six newspapers are published in this state, (April, 1819.) Huntsville may be said at present to be the seat of literature. The college contemplated, is not yet located.

Cities and Towns.] **MOBILE**, though not intended for the capital, is nevertheless the chief town. It is a port of entry and the capital of the county of the same name. It stands on the west side of the river, at its entrance into Mobile bay. When this town was first taken possession of by the U. States, in 1813, it was in a very decayed state ; since which it has revived, and is now flourishing in trade and assuming a much better appearance. It contains a Roman Catholic church, and a printing office ; and is defended by fort Conde. The shipping owned here, in 1816, amounted to 594 tons. A steam boat is now plying between this town, and St. Stephens, 120 miles distant by water, and another to New-Orleans, 170 miles, through Lake Pontchartrain. Pensacola, is 50 E. of Mobile. Lon. $88^{\circ} 21'$ W. lat. $30^{\circ} 40'$ N.

HUNTSVILLE, is the chief town of Madison county, lat. $34^{\circ} 30'$ N. lon. 87° W. a little N. of Tennessee river, at the head of Indian Creek. The town is on a bed of limestone, regularly laid out, and has a court house, market, printing office, and upwards of 100 dwelling houses. Its site was selected, for the sake of enjoying the advantages of a singular spring of the purest water, which issues from the foot of a ledge of limestone, 20 feet high, on one side of the town. The stream issuing from this spring, or rather subterranean river, is 60 feet wide, and so deep, as soon to form a stream, which can be rendered boatable quite to the town. The surrounding country is pleasant and fertile, and fast settling.

ST. STEPHENS, was the seat of government while Alabama was a territory. It has a bank, an academy, and a printing office. It stands on uneven ground, on the west bank of the Tombigbee river, which is navigable for vessels drawing 4 feet water, about 120 miles above Mobile. It has about 1000 inhabitants. Lat. $31^{\circ} 34'$ N.

BLAKELY, stands on the Tensaw, or E. channel of the Mobile. Lat. $30^{\circ} 43'$ N. 10 miles E. N. E. of Mobile. This town is of recent establishment, but of rapid growth, regularly laid out in streets, 90 feet wide. It has a good harbor. The same wind which brings a vessel into Mobile bay, will take her to the wharves of Blakely. The town plat is a mile square, elevated and pleasant, supplied with good water, and has good commercial advantages.

* See act of Congress.

CAHAWBA. Congress, in their act constituting the state, granted to it 1,620 acres of land lying on both sides of the Alabama and Cahawba rivers, including the mouth of the Cahawba, for the seat of their state government. At present (1819) nothing more has been done, than the demarcation of the township.

Roads and Inland Communications.] When the Alabama was included in the Mississippi Territory, a road was opened from the northern settlements in this territory through the Choctaw country, to that of the Chicasaws. The principal road at present is from New-Orleans by Natchez, thence crossing the Tombigbee at St. Stephens, and running a little south of that river, in a N. E. direction into Georgia. This is the great road from the southern Atlantic states to New-Orleans. Five per cent of the nett proceeds of public lands in this state, which shall be sold by Congress after the 1st of September, 1819, is appropriated to making roads and canals, and improving the navigation of rivers; three fifths to be applied by the legislature to these objects within the state, and two fifths by Congress, to the same objects, without the state, and leading to it. See article, *Face of the country*, for further information.

Manufactures and Commerce.] Both these are yet in their infancy, and no official returns have been made. The prospects in regard to both, are highly favorable. Its commerce is already very considerable.

Revenue.] Among other sources of revenue to the state, Congress have reserved to it, all its salt springs, with lands adjoining, sufficient to work them, subject to such conditions and regulations as it shall from time to time prescribe. These springs are never to be sold, nor leased for a longer period than 10 years.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE, FACE OF THE COUNTRY, SOIL, PRODUCTIONS, AGRICULTURE, RIVERS, INLAND NAVIGATION, CURIOSITIES, SPRINGS.

Climate.] The same as Georgia and Mississippi, which see, *Face of the Country, Rivers, Soil and Productions.*] The country lying between the sources of the rivers Chatahouche and Mobile, and the gulf of Mexico, is an inclined plane, regularly descending towards the sea, and by following the proper levels, it presents no natural obstacle to the opening of a canal, which may be fed by the waters of these two rivers, and extend-

ing from the tide-water, on the coast of Georgia, to the Mississippi. The distance in a direct line is about 550 miles. The project of a canal, by this route, to connect the waters of the Mississippi, with the Atlantic, on the coast of Georgia, has been proposed by the Secretary of the Treasury. To accomplish it requires only time, perseverance and labor. "When it is recollected," says the Secretary, "that such an undertaking would discharge the Mississippi into the Atlantic, the remarks already made on the trade of that river and other obvious considerations, will sufficiently point out its immense importance. Nor should the plan, on account of its magnitude, be thought chimerical; for the elevation, and other natural obstacles of intervening ground, or want of a sufficient supply of water, and not distance, are the only insuperable impediments to an artificial navigation. This work, which is presented not as an immediate, but as a distant object, worthy of consideration, would probably require 10 millions of dollars, and 30 years for its completion. The annual sales of the public lands, in the Mississippi territory, (now Alabama and Mississippi States) which are estimated at 50 millions of acres, would, after paying the debt due to the state of Georgia, afford sufficient funds; and the increased value of the residue would alone more than compensate the expense. It is proper to add, that an inland navigation, even for open boats, already exists from New-Orleans by the canal Carondelet, to the lake Pontchartrain, thence between the coast and the adjacent islands to the bay of Mobile, and up its two principal rivers, the Alabama, and the Tombigbee to the head of the tide. The current of these two rivers being much less rapid than that of the Mississippi, they have long been contemplated, particularly the Tombigbee, as affording a better communication to the ascending or returning trade from New-Orleans to the waters of the Tennessee, from which they are separated by short portages."*

A ridge of highlands passes off from the southern point of the Appalachian or Allegany mountains, in the Cherokee country, to the west, dividing the streams which fall into the Tennessee on the N. the Mississippi, W. and the gulf of Mexico, S. North of this ridge is a limestone country; south of it the whole country is *alluvial*, or that which has been *deposited*, in successive ages, by the streams which pass through it, and accumulated by the decay of its vegetable productions.

The principal rivers in this state, are, on the N. the Tennessee, which enters at its N. E. corner, curves to the south, and leaves it at its N. W. corner. In its course within the limits of this state it passes the *Muscle Shoals*, and receives a great number of tributary streams both from the N. and the S. The principal river in this state is the Mobile, including its branches, which we described principally from Hutchins, who surveyed it. On the bar at the entrance of the bay of Mobile, there is only about 15 or 16 feet water; two thirds of the way through the bay, towards the town of Mobile, there is 2 or 3 fathoms; and the deepest water to be depended on in the upper part of the bay is only 10 or 12 feet, and in many places not so much. Large vessels cannot go within 7 miles of the town.

* Report, 1808.

The *Mobile* is formed by the union of the Alabama and the Tombigbee, about 40 miles above the town of Mobile. After the junction of the two rivers, the united stream pursues a southerly course for about 3 miles, and then divides into two branches. These branches again subdivide. The main western branch, from thence to Mobile bay, is called the Mobile. The town of Mobile is on this branch. The eastern branch is called the Tensaw. It is deeper and wider than the western. The town of Blakely is upon this branch.

The *Alabama* river is formed by the union of the Coosa and Tallapoosa rivers. Its general course is nearly southwest. From Fort Jackson, situated near the junction of Coosa and Tallapoosa rivers, to the mouth of Cahawba, the distance, by land, is about 60 miles; thence to Fort Claiborne, 60 or 70 miles; thence, to the junction with the Tombigbee, about 60 miles farther. Fort Claiborne is at the head of schooner navigation. Large boats ascend to Fort Jackson.

The *Coosa* river has a fine deep channel from its mouth, 3 miles by land below Fort Jackson, up to Wetumpka, or the Great Shoals, 5 miles above the Fort. Here, for the present, we may reckon the head of navigation on this river.

The *Tallapoosa* is navigable, except in dry seasons, up to the Great Falls, about 35 miles above Fort Jackson.

The *Tombigbee*, according to the line of division recently established between the states of Alabama and Mississippi, falls almost entirely within the limits of Alabama. Ascending this river, the first place of importance is St. Stephen's, standing on the western bank, 80 miles above Mobile, and at the head of sloop navigation. Eighty miles above St. Stephens, is the entrance of the Black Warrior, a fine stream from the east. The Black Warrior is of importance, because it will probably become the channel of communication between the immense, fertile, country on both sides of the Tennessee river, and the sea ports on Mobile bay, and the Perdido. From the town of Mobile to the falls of the Black Warrior, is about 500 miles by water; thence to Huntsville, situated on a branch of the Tennessee, is 120 miles, by land, principally through a level country. Goods have been brought from Mobile to Huntsville, in less than 30 days, through this channel; when it would have required more than double that time, to have imported the same goods from New-Orleans, by the way of the Mississippi and the Tennessee.

All the surface drained by the Tombigbee, Black Warrior, Alabama, Coosa, Tallapoosa, and Cahawba rivers, is estimated at 40,000 square miles. Some place, near the head of Mobile bay, must become an emporium for the commerce of this wide and fertile region.

With respect to soil, the country bordering on Tennessee river, above and below the Muscle Shoals, for the space of 100 miles, and for 40 miles north and south, is regarded, by some, as the garden of North-America. Thousands of adventurers in the southern states, Kentucky and Tennessee, have their eyes upon this favorite tract; the Muscle Shoals may be considered as the centre of emigration for several years to come. Madison county, which lies in this region, 7, or 8 years ago was a mere wilderness. Now, (1817,) it is said to com-

tain a population of more than 15,000 souls, and to have produced in one year ten thousand bales of cotton. This county is a part of the territory recently ceded by the Indians.

The lands near the mouth of the Mobile are generally low ; as you proceed upwards, the land grows higher, and may with great propriety be divided into 3 stages. First, low rice lands, on or near the banks of the river of a most excellent quality. Secondly, what are called by the people of the country second low grounds, or level flat cane lands, about 4 or 5 feet higher than the low rice lands. And, thirdly, the high upland or open country. The first or low lands extend about a half or three quarters of a mile from the river, and may almost every where be easily drained and turned into most excellent rice fields, and are capable of being laid under water at almost all seasons of the year. They are a deep black mud or slime, which have in a succession of time been accumulated, or formed by the overflowing of the river.

The second low grounds being, in general, formed by a regular rising of about 4 or 5 feet higher than the low lands, appear to have been originally the edge of the river. This second class or kind of land is in general extremely rich, and covered with large timber and thick strong canes, extending in width upon an average three quarters of a mile, and in general a perfect level. It is excellent for all kinds of grain, and well calculated for the culture of indigo, hemp, flax, or tobacco.

At the extremity of these second grounds, you come to what is called the high or uplands, which are covered with pine, oak, and hickory, and other kinds of large timber. The soil is of a good quality, but much inferior to the second or low land. It answers well for raising Indian corn, potatoes, and every thing else that delights in a dry soil. Further out in the country again, on the west side of this river, you come to a pine barren, with extensive reed swamps, and natural meadows or savannas, which afford excellent ranges for innumerable herds of cattle.

On the east of the river Mobile, towards the river Alabama, is one entire extended rich cane country, not inferior perhaps to any in America.

The country directly east of the Alabama, consists of good land ; a considerable portion of it is of the first quality. Of the lands lying to the north and west of the Alabama and Coosa rivers, but little has been surveyed, and consequently but little of them is known.

Natural Curiosities.] On the north side of the Etowee or Hightower river, a branch of the Coosa, is one of those stupendous artificial mounds of earth, which are so common in the western country. The circumference of the mound at the base is 1114 feet, and its perpendicular height is estimated at 75 feet, the slant height being 111. Its top and sides are covered with trees of a most luxuriant growth. An oak, which was lying upon the ground, stripped of its bark, measured, at the distance of six feet from the end, more than 12 feet in circumference. There are several other mounds in the vicinity of smaller dimensions. The Cherokees, within whose limits

these mounds are situated, have no traditions respecting their origin.*

Springs.] The salt springs in this state are reserved for public use, and are not to be sold. There are many remarkable springs in the limestone country, in the northern part of this state. One has been mentioned. See Huntsville.

WESTERN STATES.

Proceeding from S. to N., on the Eastern side of the Mississippi ; and from N. to S. on the Western side.

- | | |
|----------------|-----------------------|
| 1. Mississippi | 5. Indiana |
| 2. Tennessee | 6. Ohio |
| 3. Kentucky | 7. Michigan Territory |
| 4. Illinois | 8. N. W. Territory |

The above are E. of the Mississippi.

- | | |
|------------------------|------------------------------|
| 9. Missouri | 11. Louisiana |
| 10. Arkansas Territory | 12. Territories W. of these, |
- to the Pacific Ocean.

MISSISSIPPI.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT, BOUNDARIES, NAME, DIVISIONS, HISTORY, LAWS, POPULATION, LITERATURE, BANK, CHIEF TOWNS, ROADS AND CANALS, INDIANS, COMMERCE AND MANUFACTURES.

Extent.] The act of Congress of March, 1817, establishing this state, prescribes the following limits. "Beginning on the Mississippi river, at the point where the southern boundary line of the state of Tennessee strikes the same; thence east along the said boundary line to the Tennessee river; thence up the same to the mouth of Bear creek; thence by a direct line to the northwest corner of the county of Washington; thence due south to the gulf of Mexico; thence westwardly, including all the islands within six leagues of the shore, to the most eastern junction of Pearl river with lake Borgne; thence up said river to the thirty-first degree of N. latitude; thence west along the said degree of latitude

* Silliman's Journal of Sciences.

to the Mississippi river; thence up the same to the beginning.^{**} It lies between 30 and 35° N. lat. and 88° 20', and 91° 30' W. lon. It is 350 miles long from N. to S. and on an average about 130 broad, containing 45,000 square miles, or 29,000,000 acres.

Boundaries.] Bounded N. by Tennessee; E. by Alabama; S. by the gulf of Mexico and Louisiana. W. by the Mississippi river.

Name.] This state takes its name from the river which forms its western boundary.

Divisions.] All the northern parts of the state are yet occupied by the Indians. The part which has been divided into counties lies south of the mouth of the Yazoo river, and comprehends less than one third of the whole state. The names of the counties, with their population in 1816, are as follows :

<i>Counties.</i>	<i>Whites.</i>	<i>Slaves.</i>	<i>Total.</i>	<i>Towns.</i>
Warren	799	768	1,569	Warren
Claiborne	1,716	1,790	3,506	Gibsonspport
Jefferson	2,548	2,358	4,906	Greenville
Adams	3,608	6,394	9,998	NATCHEZ
Wilkinson	3,218	4,057	7,275	Woodville
Franklin	1,696	1,013	2,708	
Amite	3,365	1,694	5,059	Liberty
Lawrence	1,367	417	1,784	Monticella
Pike	2,078	540	2,618	
Marion	1,015	686	1,701	
Wayne	1,566	517	2,084	
Greene				
Hancock	667	333	1000	
Total	23,644	20,547	44,208	

Of the above counties, the 5 first lie upon the Mississippi river between the mouth of the Yazoo, and the southern boundary of the state, and contain two thirds of the whole population, on a territory of about 2500 square miles. Franklin and Amite lie directly east of Adams and Wilkinson. The remaining counties have been recently made, and lie southeast of the others. Hancock county borders on the gulf of Mexico.

History.] A part of this state has long been inhabited by white people. In 1539, Ferdinand de Soto, with 900 men, beside seamen, from Cuba proceeded as far as the Chickasaw country, lat. 35 or 36°, and in 1542 died, and was buried on the bank of the Mississippi or Red river. Since this period this country has often changed masters.

In 1773, Gen. Putnam, Capt. Enos, and Mr. Lyman, attempted a settlement on the Lousa Chitto, which failed.

* The southern boundary of Tennessee is the 35th degree of N. lat. According to Melish's map the eastern boundary, from Bear creek to the gulf of Mexico, is almost a straight line, running N. and S. and nearly coinciding with the meridian of 88° 20' W. lon.

In 1779, the British took possession of the Natchez country, which at this period was settling fast by immigrations from the northern states.

In 1795, when this state with Alabama, belonged to the state of Georgia, its legislature sold to 4 different companies about 22,000,000 acres of its lands; which were afterwards purchased principally by gentlemen in the middle and eastern states. Serious disputes followed concerning these lands, which after long controversy have been adjusted between purchasers and the United States.

In 1800, the western part of Georgia, which now forms the states of Mississippi and Alabama, was erected into a territorial government, with the privileges usual to such governments.

By treaty, in Dec. 1801, at fort Adams the Choctaw Indians relinquished to the United States all the land in Mississippi, between the old line of demarkation, established by the British, and the Mississippi river, bounded S. by the 31st degree of lat. and N. by the Yazoo river.

In March, 1817, the western part of the then Mississippi territory, was erected, by act of Congress, into a state, and the eastern part into a territorial government, which they named *Alabama*.

Laws.] The fourth section of the act of Congress admitting this state into the Union, provides, that every tract of land, sold by Congress, shall be exempt from any tax laid by the state, whether for state, county, town, parish or other purpose, for the term of 5 years from the day of sale; and that the lands belonging to citizens of the United States, residing without the said state, shall never be taxed higher than the lands belonging to persons residing therein; and that no taxes shall be imposed on lands the property of the United States; and that the river Mississippi, and the navigable rivers and waters leading into the same, or into the gulf of Mexico, shall be common highways, and forever free, to all the citizens of the United States without any tax, duty, impost or toll therefor, imposed by the state.

Population.] Exclusive of Indians, the population of this state in 1810, was 31,306. In 1816, it was 44,208, of whom 20,547 were slaves. A very considerable number of emigrants are annually removing into this state. The present population probably exceeds 50,000.

Literature.] Jefferson College in the town of Washington was incorporated in 1802. An edifice 170 feet by 40 has been erected for the accommodation of students, but the institution cannot yet be ranked higher than a respectable academy. Another college has been recently incorporated at Shieldsborough. There are academies at Natchez, Monticello, and Woodville.

Bank.] A bank is established at Natchez with a capital of \$3,000,000, having several branches.

Chief Towns.] NATCHEZ, in Adams county, stands on the east bank of the Mississippi, 320 miles above New-Orleans, by the course of the river, and 156 by land. The principal division of the town stands on a bluff, elevated upwards of 150 feet above the

surface of the river. In consequence of a bend in the Mississippi, at this place, the whole force of the current is thrown against the base of the bluff, and is gradually undermining it. Parts of the bluff have fallen in repeated instances, and in 1805, several houses were buried. The town is regularly laid out. The houses have an air of neatness, though few are distinguished for elegance or size. To enable the inhabitants to enjoy the evening air, almost every house has a piazza and balcony. The greater part of the business is transacted at the landing, where boats can load and unload with safety and convenience. Sea vessels come up the Mississippi as far as Natchez; but the voyage is tedious, and of late years not often attempted. Cotton is the grand staple of the country in the vicinity. The income of the original planters is princely; from 5000 to 30,000 dollars per annum. The country for the space of 20 miles in the rear of the town is settled, and the plantations generally contain from 400 to 1000 acres. The planters are distinguished for their wealth, luxury, and hospitality. Population in 1810, 1,511. It now probably exceeds 3000.

Washington, about 6 miles east from Natchez, also in Adams county, was for 15 years, the seat of government for the Mississippi territory. It stands on the bank of St. Catherine creek, in a healthy pleasant situation. Washington has many allurements as a summer's residence over any town near the Mississippi river, south of Tennessee. It is placed in a well cultivated neighborhood, the water is excellent, the adjacent country is agreeably diversified with hill and dale, and no stagnant waters in its vicinity. Population, in 1810, 524.

Monticello, on Pearl river, in Lawrence county, is the present seat of government for the state of Mississippi. The position of Monticello is nearly central, with respect to that part of the state in which the Indian title is extinct; and is in a high, dry, healthy situation. The town is of very recent date, and the population small. Lat. 31 33 N. lon. 90 W.

The other towns in the state are small, and distinguished only as being the seats of justice for the respective counties.

Roads and Canals.] The 5th section of the act of Congress by which this state was admitted into the union, provides that 5 per cent of the nett proceeds of the lands lying within the state, which shall be sold by congress, shall be reserved for making public roads and canals; of which three fifths are to be applied to those objects, within the state, under the direction of the state legislature, and two fifths to the making of a road or roads leading to the state, under the direction of Congress. It is provided, however, that the application of these funds to this object shall not commence, until after payment is completed of the 1,250,000 dollars due to the state of Georgia, nor until after payment of the stock which has been created for the indemnification of certain claimants of public lands in the Mississippi territory. Similar provisions have been made by Congress in favor of all the new states.

Indians.] The *Choctaws*, or *Flat-Heads*, occupy the country between the Tombigbee and the Mississippi, bounded north by the country of the *Chickasaws*, and south by a line running a little below the parallel of 32°. A small part of this territory is in the state of Alabama, but it lies principally in Mississippi. The number of the *Choctaws* is estimated at 20,000. Within a few years they have made great advances in agriculture, and other arts of civilized life. They raise corn and different kinds of pulse, melons, and cotton also. In one year they spun and wove 10,000 yards. An ingenious *Choctaw*, for a series of years, raised his own cotton, made wheels, cards, &c. spun it, wove it, and made it into clothing. The *Choctaws* raise a great many cattle. They have laid aside hunting as a business, though they sometimes engage in it for amusement.

They speak very reverentially of the Supreme Being ; but have no exterior worship. Polygamy is very common ; there is no marriage ceremony, and their morals, in this respect, are very corrupt. Till within a few years they did not bury their dead, but left the bodies on scaffolds, erected before their doors, till the flesh was consumed. Their government is entirely advisory. They are divided into three tribes, each of which has a chief. The tribes are subdivided into clans. The individuals of different clans do not intermarry.

The *Choctaws* have strong tendencies towards a civilized state. They are friendly to travellers, for whose accommodation they have established a number of public inns, which for neatness and accommodations actually excel many among the whites.

The American Board of Commissioners for Foreign Missions, in June, 1818, established a missionary station among the *Choctaws*, which they have named ELLIOT, after the celebrated New-England missionary of that name. The seat of this mission is about 400 miles southwesterly, from BRAINERD, the missionary station among the *Cherokees*. It is near the Yalo Busha creek ; about 30 miles above its junction with the Yazoo. It is in a fine country, in a situation supposed to be salubrious, and by the Yalo Busha, the Yazoo, and the Mississippi, will have a water communication with Natchez and New-Orleans. The half breeds and natives, appear highly gratified, and treat the missionaries with much kindness. The necessary buildings for the mission are now building at the expense of the United States.

The territory of the *Chickasaws* is included within the chartered limits of the states of Tennessee, Kentucky, and Mississippi. More than half is in Mississippi. It is bounded W. by the Mississippi river ; N. by the Ohio ; E. by Tennessee river and Alabama territory, and S. by the country of the *Choctaws*. The boundary line commences on the Mississippi, a little below lat, 34° N. proceeds up this river to the entrance of the Ohio ; up the Ohio to the junction of the Tennessee ; up the Tennessee to Cany creek, about 20 miles below the Muscle Shoals ; up Cany creek to its source ; thence in a line to the Tombigbee ; down this river to the mouth of Oketibba, in about lat. 33°, where it meets the *Choctaw* line ; and from this point in a northwest direction, to its commencement on the Mississippi. A large portion of the country is very fertile and valuable.

They have by a late treaty ceded a large tract of the northern part of their territory to the United States.

The Chickasaws, according to the statement of the United States agent for this tribe, consist of 6,456 souls, of whom 680 are warriors. There are 4 males to 1 female. This inequality is attributed to the practice of polygamy, which is extremely prevalent among this tribe.

The Chickasaws have always been the warm friends of the United States, and are distinguished for their hospitality. Some of the chiefs possess numerous negro slaves, and annually sell several hundred cattle and hogs. The nation resides in eight towns, and like their neighbors, are considerably civilized. The American Board of Commissioners for Foreign Missions, have in contemplation the speedy establishment of a mission among these Indians, preparations for which are already made.

Commerce and Manufactures.] Cotton is the principal article of exportation. Tobacco and indigo were formerly raised for exportation, but the former is nearly, and the latter entirely, abandoned by the planters. Most of the flour and grain used in the settlements on the Mississippi, is purchased from the Kentucky boats. In 1810, the manufactures of this state, were valued at \$419,073.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE, FACE OF THE COUNTRY, SOIL AND AGRICULTURE, RIVERS, NATURAL CURIOSITIES, ZOOLOGY.

Climate.] The border of the gulf of Mexico, near the mouth of the Pascagoula river, is esteemed among the most salubrious places in that climate. The country is high, dry, and refreshed by breezes from the sea. Here many persons retire from New-Orleans in the summer months.

On the Mississippi, if the parts immediately adjacent to the river are excepted, the country from the Yazoo to the southern boundary of the state, is salubrious. The surface is dry and waving; little or no marshy land exists; and the spring and well water are excellent. The inhabitants are said to enjoy as much health as is common in other parts of the world in the same latitude. From September to April the weather is uniformly pleasant.

The Indian country enjoys as fine and healthy a climate as any on the continent.

Face of the Country.] The southern part of the territory, for about 100 miles from the gulf of Mexico, is mostly a flat country, with occasional hills of moderate elevation, and is covered with forests of the long leaved pine, interspersed with cypress swamps, open prai-

ries, and inundated marshes. A considerable portion of this part is susceptible of cultivation. The soil is generally sandy, sometimes gravelly and clayey. In proceeding north the face of the country becomes more elevated and agreeably diversified. The growth of timber consists of poplar, hickory, oak, black walnut, sugar maple, buckeye, elm, &c. The soil is a deep vegetable mould of surprising fertility, and the surface agreeably undulating.

At Loftus' heights in the S. W. corner of the state a ridge of land commences, and pursues a northeastern course into the Indian country, separating the waters which flow into the Buffalo, the Homochitto and the Yazoo, from those which empty into the Amite and the Pearl. Though this ridge is not very elevated, there is a sensible difference of climate on the opposite sides.

Soil and Agriculture.] The counties lying west of the dividing ridge, and bordering upon the Mississippi, are the most fertile parts of the state in possession of the whites. The western border of this section is formed by the banks of the Mississippi. This border is intercepted by the hilly land reaching the river, as at Walnut hills, Grand Gulf, Natchez, White cliffs, and Loftus' heights. There are many other places where the bluffs approach within a very short distance of the Mississippi. The most extensive bottoms in this tract are at Palmyra, below the mouth of the Yazoo; between Bayou Pierre and Cole's creek; between Villa Gayosa and Natchez, and between the White cliffs and Loftus' heights. These bottoms are liable to an annual inundation from the Mississippi. The whole extent of the surface thus inundated, between the mouth of the Yazoo and the southern boundary of the state, is estimated at 600 square miles. The hilly or broken country rises like a buttress from this plain, producing a country of waving surface, though no part of its extent is very elevated. There are but few places in the United States where the soil affords more diversity than does the country watered by the Yazoo, Big Black, Homochitto, Buffalo, and the numerous streams in their vicinity. No part of the earth is more congenial than this region to the growth of cotton. This useful plant flourishes luxuriantly in this warm and waving soil. After leaving the level inundated bottoms of the Mississippi, and ascending the bluffs, and for 10 or 15 miles into the interior, the surface of the country is generally composed of rich loam, and thickly timbered with a great variety of trees. There are few spots in the world where the forests present a greater number of species.

Upon land thus richly clad by nature, have arisen the fine farms that now pour such abundant wealth into the lap of their owners. Cotton is at this time, and perhaps will ever remain the staple of this country. Tobacco and indigo have both been cultivated, and the former nearly, and the latter entirely abandoned by the planters. Maize, or Indian corn, sweet potatoes, Irish potatoes, and a great variety of other vegetables may be cultivated successfully. The apple, peach, fig, and plum are the most common fruit. The cultivation of cotton, however, is attended with such enormous profits, that grain, and fruits which can be brought down the Mississippi, will probably for a long time be neglected.

Labor is almost exclusively performed by slaves. A good negro from 20 to 30 years of age, will command from 800 to 1200 dollars. A prime slave will attend about 3 acres of cotton, which will yield an annual nett profit of from 230 to 260 dollars; the clear profit of the full grown male slaves will average about 200 dollars, after deducting the expense of food and clothing. Land is very high in the settlements along the Mississippi, from Yazoo river to the southern boundary of the state. Cotton is planted about the middle of February; corn, from March to July, according to the convenience of the cultivator. The sugar cane is sometimes planted as high up as Natchez, but not with the same success as is experienced at Baton Rouge. The Homochitto river may, for the present be considered as the northern boundary of the sugar region.

The Choctaw and Chickasaw Indians possess about two thirds of the whole territory. The tracts possessed by these tribes, comprise some of the finest parts of the state, abounding with extensive and beautiful prairies. The country in particular, included between the Yazoo, and Tennessee on the east, and the Mississippi on the west, is represented as incomparably rich and beautiful, well watered and healthful.

Rivers.] The Mississippi forms the western boundary of the state from lat. 31 to 35 N. 300 miles in a right line, but by the course of the river near 600 miles.

The Yazoo river rises in the Chickasaw country, near the Tennessee boundary, in lat. 35; and pursuing a southwest course falls into the Mississippi, 12 miles above the Walnut hills, and 142 above Natchez. It is 280 yards wide at its mouth, of a gentle current, and navigable about 100 miles. It waters that part of the state lying between the Tennessee boundary, the Mississippi, and the road leading from the Muscle Shoals to Natchez. Some excellent land lies upon the margin of this river, but the banks are subject to inundation. The river runs almost entirely within the Indian country. The missionary settlement among the Choctaws is on a branch of this river.

Big Black river has its source in the Chickasaw country between the head waters of the Yazoo and Pearl rivers, and pursuing a S. W. course for about 170 miles, enters the Mississippi above the Grand Gulf, 50 miles above Natchez. It is navigable about 70 miles in wet seasons. Like all other streams which drain the high table land between the Mississippi and Tombigbee rivers, the land upon the head waters of the Big Black is sterile pine woods. As the river approaches the Mississippi, the soil upon its banks improves, and becomes very fertile.

Bayou Pierre enters the Mississippi 10 miles below the mouth of the Big Black. Next in order, proceeding down the river, are *Cole's Creek*, *Fairchild's creek*, and *St. Catherine creek*.

Homochitto river rises in the borders of the Indian country, near the N. E. part of Amite county. Its general course is southwest; this river forms the limit between the counties of Amite and Franklin, and between Adams and Wilkinson. It enters the Mis-

issippi above Fort Adams. For about 15 miles from its mouth, the banks of the Homochitto are annually overflowed, and are unfit for settlement. Some of the most wealthy settlements in the state are upon this river and its tributary creeks. All the varieties of soil in the state of Mississippi may be seen on this stream, and almost every species of forest tree growing in Louisiana may be found in its woods.

The river *Buffalo* rises in Amite county, flows through Wilkinson county in nearly a western direction, and falls into the Mississippi two miles above Fort Adams at Loftus' heights. The soil, general aspect of the country, and natural productions, differ but little from those of the Homochitto.

On the east side of the dividing ridge, which commences in the southwest corner of the state, and traverses the country in a north-easterly direction, the first river of consequence is the *Amite*. This river rises in the N. E. extremity of the county of the same name, pursues a southerly course into the state of Louisiana, and unites with the Iberville. 40 miles above the entrance into lake Maurepas. The country on the head waters of this river is hilly, healthy, and well timbered.

Pearl river is the largest stream between the Mobile and the Mississippi. It rises in the Choctaw country, and pursuing a southerly course, empties into the Rigolets, or channel of communication between lake Ponchartrain and lake Borgne. In the southern part of its course it is the boundary between Mississippi and Louisiana. The navigation of the river is much impeded by shallows.

Pascagoula river rises in the Choctaw country, and drains a space between the Pearl, Tombigbee and Mobile rivers. It empties into the gulf of Mexico about 40 miles W. of Mobile bay. The principal branch of the Pascagoula, is the *Chickisawha*, which rises in the Choctaw country, and running south receives the river *Leaf* about 8 miles below the 31° of N. lat. The united stream takes the name of the Pascagoula, and flows S. E. by S. 40 miles, and falls into the gulf of Mexico. The Pascagoula and its branches are navigable for vessels drawing 4 feet water more than 50 miles, and for boats 150. *Dog* river empties into the estuary of the Pascagoula from the east.

The *Tennessee* river forms the boundary of this state on the N. E. for a short distance. The western branches of the *Tombigbee* rise in this state.

Natural Curiosities.] About 300 miles N. E. of Natchez are immense beds of oyster shells, extending at intervals through a distance of 12 miles. The shells do not cover the surface of the earth merely, but form a constituent part of the hills or plains in which they are found.

* Under this head may also be mentioned the Tillandsea or Spanish moss which is met with in the Choctaw nation about 300 miles from New-Orleans. This singular vegetable attaches itself to the branches of trees and hangs loosely from them in great abundance.

Its color is nearly that of dressed flax. It throws a gloom over the aspect of nature, as it covers almost every tree of the forest. It is used by the inhabitants universally for making mattresses and answers the purpose as well as hair *

Zoology.] Game is scarce ; but tigers, bears, wolves, wild cats, and foxes are found in the forests skirting the Mississippi. The *alligator* inhabits the streams south of lat 32°. They are destructive to hogs, dogs, and other animals which venture into the water, or approach the margins of rivers. The teeth of this animal are short and irregular, and the jaws remarkably strong. If they once get hold of their prey, they never suffer it to escape. They often bask on the shore, or on logs, where they sleep. On the approach of rainy weather, they make a bellowing noise which may be heard at the distance of half a mile. When they are found at a distance from the water, they defend themselves to the last extremity. The *Gouffre* is the resident of the pine barrens. The shell is about 15 feet long, and 12 inches wide. It lives principally under ground. The *Murena Siren* is troublesome to rice planters. It cuts holes through their dams in the night and lets off the water.

TENNESSEE.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT, BOUNDARIES, NAME, DIVISIONS AND POPULATION, ORIGINAL POPULATION, HISTORICAL EPOCHS, ANTIQUITIES, RELIGION, GOVERNMENT, INDIANS, MILITIA, REVENUE, MANNERS AND CUSTOMS, LANGUAGE, COLLEGES, ACADEMIES AND SCHOOLS, CHIEF TOWNS, MANUFACTURES, COMMERCE.

Extent.] Length 430 miles. Breadth 204 miles. Between lon. 81°, 30 and 90°, 30' W. Lat 35° and 36°, 30 N.

Boundaries.] On the N. by Kentucky, and part of Virginia ; E. by North-Carolina ; S. by Georgia, Alabama, and Mississippi ; W. by the river Mississippi. Its shape is rhomboidal.

Name.] This state takes its name from its principal river. The Indians are said to have given this name to the river on account of its *curvature*, which gave to their imaginations the form of an *Indian spoon*, which is the meaning of the name.

Divisions and Population.] These are given in the following •

* Silliman's Journal of Sciences.

TOPOGRAPHICAL TABLE.

EAST-TENNESSEE.

<i>Counties.</i>	<i>Population.</i>	<i>Chief towns.</i>
Anderson	3,959	Clinton
Bledsoe	8,839	Pike
Blount	3,259	Marysville
Campbell	2,668	Jacksonburg
Carter	4,190	Elizabethtown
Claiborne	4,798	Tazewell
Cocke	5,154	Newport
Granger	6,397	Rutledge
Greene	9,713	Greeneville
Hawkins	7,643	Rogersville
Jefferson	7,309	Dandridge
Knox	10,171	Knoxville
Rhea	2,504	Washington
Roane	5,581	Kingston
Sevier	4,595	Sevierville
Sullivan	6,847	Blountsville
Washington	7,740	Jonesborough
Total 17	101,367	

WEST-TENNESSEE.

<i>Counties.</i>	<i>Population.</i>	<i>Chief towns.</i>
Bedford	8,282	Shelbyville
Davidson	15,608	Nashville
Dickson	4,516	Charlotte
Franklin	5,730	Winchester
Giles	4,546	Pulaski
Hickaman	2,583	Vernon
Humphries	1,511	Reynoldsburgh
Jackson	5,401	Williamson
Lincoln	6,104	Fayetteville
Montgomery	8,021	Clarkesville
Maury	10,359	Columbia
Averton	5,643	Monroe
Robertson	7,270	Springfield
Rutherford	10,265	MURFREESBOROUGH
Summer	13,792	Gallatin
Smith	11,649	Dixon's Springs
Stuart	4,262	Dover
Wilson	11,952	Lebanon
Williamson	13,153	Franklin
White	4,028	Sparta
Warren	5,725	Mc Minville
Total 21	160,360	

Since the last census was taken, *Greenville* and *Wayne* counties have been incorporated.

The first inhabitants of this state migrated chiefly from N. Carolina and Virginia ; many from other states, and from Europe, have since settled here.

This state sends *six* representatives to Congress.

Original Population.] Like most of the western countries, its original inhabitants, who seem, by the abundant remaining monuments, to have occupied it for several centuries, are supposed to have at length migrated to Mexico, or been destroyed by war, pestilence, or some other judgment of heaven.

Historical Epochs.] About the middle of the last century, the Shawanee Indians, who lived on the Savannah river, in Georgia, removed and settled on the Cumberland river, near the present site of Nashville. They were not suffered, however, long to remain in this fine country ; but were driven off by the more powerful Cherokees.

This country was included in the second charter granted by Charles II. to the proprietors of Carolina ; and in a subsequent division it was made a part of North-Carolina.

Its situation was so remote from the sea board, beyond rude mountains, and exposed to savages, that no settlement of white people was begun, till near the commencement of the revolutionary war. The first settlers stationed themselves on the Watauga river. Here they continued several years unnoticed by the government of North-Carolina, and under no laws but their own. Their operations in the war were connected with those of the western settlers of Virginia.

The year 1776, was signalized by a formidable invasion by the Cherokees. Their intention was to depopulate the country, as far as the Kanhawa, because this brave people had rejected, with a noble firmness and indignation, the proposals of Henry Steuart and Alexander Cameron to join the British standard, and were almost unanimous in their resolution to support the measures of Congress. This invasion issued in a total defeat of the Indians. The first appearance of any persons from this district, in the public councils of North-Carolina, was in the convention that formed the constitution of that state, in 1776.

Tennessee became a distinct territorial government in 1790, and in 1796, was erected in due form into an independent state, making the 16th in the union.

Antiquities.] Vestiges remain of ancient dwellings, towns, and fortifications, with mounts, barrows, utensils, and images, wherever the soil is of a prime quality and convenient to water, throughout the country. The growth of forests over these relics demonstrates, that the country was evacuated at least 500 years ago, and more probably nearer 1000.

The bodies of two of these people were discovered in the autumn of 1810, in Warren county ; one of a man, the other of a child, to appearance about 4 years old. They were 4 feet below the surface, in a situation perfectly dry, the earth being a mixture of copperas,

alum, sulphur, nitre, &c. Their skin was preserved, though its original complexion could not be ascertained ; and their hair, which was auburn. The child was deposited in a basket, well wrought of smooth splits of the reed ; (*arundo gigantea* ;) and several singular species of cloths, as well as deer skins, dressed and undressed, were wrapped round and deposited with them, and two feather fans, and a curious belt.

Religion.] The most numerous denominations of Christians in this state are Methodists, Baptists, and Presbyterians. There are a few societies of the Scotch Seceders, and a few Friends. Many of the preachers are persons of limited attainments in learning ; whose discourses consequently, are better calculated to excite the passions, than to enlighten the understanding. But great good, it is apprehended, has been done by their instrumentality.

The buildings erected for public worship, are very ordinary. In a new country splendid edifices are not to be expected. But from the increase of population and wealth in Tennessee, which contains many professors of religion, larger and more convenient places for public worship, will doubtless soon be erected.

Government.] By the constitution of this state, formed in 1796, the legislative authority is vested in a general assembly, consisting of a senate and house of representatives. The number of representatives is to be fixed once in seven years, by the legislature, according to the number of taxable inhabitants, who are to be numbered septennially.

The senators are never to be less than one third, nor more than one half the number of the representatives, and are to be chosen upon principles similar to those for the choice of representatives. The election for members of both houses is biennial. Having been three years in the state, and one in the county, immediately preceeding election, possessing 200 acres of land in the county, and being 21 years of age, render a man eligible to a seat in either branch of the legislature. Each house may choose its own officers, judge of the qualifications and elections of its own members, and make its own rules. Neither house can adjourn for more than three days without the other. Bills may originate in either house—shall have three several readings, and being once rejected, shall not be passed into a law the same session.

No person holding an office under the authority of the United States can have a seat in the general assembly, nor can any person hold more than one lucrative office at the same time.

The executive power of the state is vested in a governor, who is chosen by the electors who elect the members of the legislature ; the person having the highest number of votes is chosen. Contested elections for governor are determined by both houses.

The governors are to be chosen biennially, and are eligible six years out of eight—are commanders in chief of the army and navy, except in the service of the United States.

Every freeman of 21 years of age, possessing a freehold in the county, and having been an inhabitant of the state for six months preceeding, may vote for the members of the legislature. The house

of representatives have the sole power of impeaching, and the senate of trying impeachments. The judicial power is vested in courts of law and equity. County officers are, sheriffs, coroners, trustees, and constables. Military officers are to be elected by persons subject to military duty. Ministers of the gospel are not eligible to a seat in the legislature. No person who denies the existence of God or a future state can hold any civil office. The oath of allegiance and of office is to be taken by persons holding any office of trust or profit.

When two thirds of the general assembly think it necessary to amend or change the constitution, they are to recommend to the electors at the next election of members to the general assembly, to vote for a convention, and if there is a majority of votes for it, the general assembly, at their next session, shall call a convention, which shall consist of as many members as the general assembly, and be chosen in the same manner. They may revise or change the constitution. The constitution closes with a declaration of rights.

Indians] A part of the Cherokees inhabit the southeastern corner of this state. The body of this nation is in the N. W. part of Georgia, and a few in the N. E. part of Alabama. The tract of country belonging to the Cherokees, before their late cessions were made to the U. States, was 250 miles greatest length, and from 100 to 150 broad, comprising about 24,000 square miles, generally of an excellent soil, in a fine healthy climate, variegated with mountains and plains, watered by the Tennessee, and its northern and southern branches, and the head branches of some of the rivers that pass into the gulf of Mexico.

The population of this country, in 1809, was 12,395 Cherokees, half of whom are of mixed blood, beside 583 negro slaves, and 341 whites. They have since increased to 14,500 souls. They had property in horses, cattle, sheep, ploughs, mills, &c. estimated at about \$570,000. They had 65 villages and towns, of about 500 souls in each. A part of this tribe has lately migrated and settled on the Arkansaw river, in Arkansaw territory. In 1805, by the treaty of Tellico, and by another treaty of March, 1819, a cession of a part of their lands has been made to the U. States; in which were made a number of *reservations* of land (in the latter treaty, one of a tract equal to 12 miles square,) as a school fund for the Cherokee nation, to be sold by the U. States, in the same manner as they sell their own lands; and the proceeds vested, under the direction of the president of the U. States, in the most productive stocks; the income to be applied by the president in the manner which he shall judge best calculated to diffuse the benefits of education among the Cherokees on this side of the Mississippi. By these treaties a part of their territory, N. of the Tennessee, and E. of the Chatahoochy, have been ceded to the U. States.

The character of the Cherokees for courage, fidelity, hospitality, and cleanliness, stands high. They are generally of a fine figure, as to their persons, polite in their manners, and fond of learning, and improvements in the arts. They are said universally to believe in

the being of God, call him the *Great Spirit*, whose attributes are goodness and power. They never profane the name of God in their own language. They have no words to express such profanity.

In 1803, the Rev. *Gideon Blackburn*, a respectable and enterprising minister of Marysville, Tennessee, projected a plan for the improvement of this nation, to which he obtained the sanction of the government of the United States, and of the Indians themselves, and in fulfilment of it, opened a school in the spring of 1804, by appointment of the General assembly of the Presbyterian church, which he continued with uncommon zeal, ingenuity, and perseverance; and with great success for four or five years, till his means were exhausted, and he constrained to abandon his enterprise. His labors have not been lost. They have helped to prepare the way for the more permanent establishment made by the "American Board of Commissioners for Foreign Missions," in 1817.

Their establishment is in the district of Chickamaugh, on a creek of this name, which runs into the Tennessee. The village, comprising the buildings and improvements belonging to the establishment, received the name of BRAINERD, in 1818, from an affectionate respect to the memory of that best of missionaries, and of men, Rev. *David Brainerd*. It is on the southerly side of the Tennessee river, 6 miles distant in the nearest course, 15, as the creek, on which it stands, runs, and which is boatable to the village; 140 miles S. W. of Knoxville, 7 E. of the Lookout mountain; 100 E. of Huntsville; 155 N. W. of Athens, 2 miles N. of the north line of Georgia. The buildings, erected at the expense of the government of the U. States, are a mission house, school house, dining hall, and kitchen, and several smaller buildings, with a grist mill.

The school consisting (May, 1818) of 47 scholars, Cherokees, is taught on the Lancastrian plan, and the progress of these youths in their studies has been highly creditable to themselves, and to their instructors, and very gratifying and encouraging to their patrons, and to the public. A considerable tract of excellent land is attached to this establishment, about 50 acres of which are under productive cultivation.

There is another respectable mission, established in this nation in 1801, by the Moravians, at Springplace, in Georgia, 35 miles S. E. of Brainerd, and 120 N. W. of Athens. Mr. Hicks, the best informed, and most influential chief in the nation, belongs to the Moravian church, at this station. His conversion is among the precious fruits of this mission.

The Chickasaws, who inhabit on the E. bank of the Mississippi, S. of West-Tennessee, possessed a large tract of some of the best lands in this western country, lying between the Mississippi and Tennessee, S. of Duck river, in the state of Tennessee. This tract has lately been ceded to the U. States.

Militia.] There are several companies of cavalry in the state, and some of infantry, which are tolerably expert; though in general, the militia are far from being well disciplined. The number on the militia rolls, in 1817, was 29,193. They would make ex-

cellent partizan warriors. Their hands and their eyes are familiar with the rifle. And they are too near the aborigines, and too well acquainted with the wilderness, not to understand scouting. They are hardy and used to privations, and must prove formidable to any enemy, that should attempt an invasion of their territory or of their rights.

Revenue.] This is raised by taxation. But the taxes are low. Each 100 acres of land pays annually to the state only 12½ cents; a free poll, the same; and a slave, 25. Though there is commonly a county tax of nearly the same amount. And every merchant, or pedlar, pays 20 dollars a year in each county, where he exhibits his goods for sale.

Manners and Customs.] In these particulars there is a greater resemblance between Tennessee and the southern states, than the northern. The character of the inhabitants, however, is not yet completely developed. Some practices, once ascendant, are discontinued. Billiards, so inauspicious to morals, are effectually proscribed; and gambling generally is less prevalent than formerly. Several years ago the assembly passed an act against the barbarous custom of duelling, disfranchising the parties concerned: since which no duel has occurred. On the whole the state of society is improving.

Language.] The national language is used universally. Foreigners, coming by single families, and not in companies, as in some parts of the union, cannot preserve their different dialects, but are under a necessity of conforming to the language of the place.

Colleges, Academies, and Schools.] Acts of incorporation were passed, by the territorial government in 1794, for three colleges in East-Tennessee; one in Washington county, one in Greene, and the other in Knox. The first, called Washington college, is without funds; though numbers of youths have been educated there, under the tuition of the Rev. president Doak, who deserves well for his assiduity. The second, called Greenville college, has some endowments, and is in a flourishing condition. It has about 75 students. Efforts are making to increase the library of this rising and important seminary, and to furnish it with a better apparatus. It is situated about 3 miles S. of the town of Greenville, in the S. E. corner of the state, in the near vicinity of 5 other states. Its president is the Rev. Charles Coffin, D. D. The third is near Knoxville, and not at present in operation. It is, however, entitled to the benefits of a donation from congress, which, there is an expectation, will produce to it a capital of 50,000 dollars. And it is understood that some addition has been made by subscriptions from the people in that vicinity.

In West-Tennessee, there is a college at Nashville, by the name of Cumberland college. The building erected for the accommodation of the students is of brick, three stories high, and containing 22 rooms with fire places. The president's salary is 1500 dollars a year; who is assisted by a tutor at 1000. Connected with it is a preparatory school. This college is entitled to the proceeds of a donation from congress, equal to that conferred on the college near

Knoxville, estimated as before mentioned, at 50,000 dollars. It has also some other property.

The donation from congress for these colleges consisted of 100,000 acres of land. Another 100,000 they conferred also for the support of academies, one in each county. In 1806, a sale of these lands was authorized by a law of the state, at a dollar an acre, payable by ten equal annual instalments, without interest.

Acts were also passed instituting an academy in each of the counties then organized, and appointing trustees. But without waiting for a quotient of this dividend, several of the board of trustees, especially in West-Tennessee, have already employed instructors, and their pupils are numerous. A spirit for education seems to be increasing.

Chief Towns.] **MURFREESBOROUGH**, in Rutherford county, W. Tennessee, 32 miles S. E. of Nashville, and 160 W. of Knoxville, has recently (1817) become the seat of the government of this state. Its situation is elevated, pleasant and healthful, well supplied with good water. It has between 200 and 300 houses, and fast increasing. Its public buildings are of brick, and handsome. Here are a court house and jail, a bank, an academy and printing office, whence is issued a weekly paper, and an elegant brick Presbyterian church.

KNOXVILLE is in the county of Knox, on the north bank of the Holston, named after major general **HENRY KNOX**, is in lat. 35, 55 N.; distant from Philadelphia, 638 miles; from Baltimore, 543; from Richmond, 458; from Nashville, 190; to each of which there is a good waggon road. The superior courts of judicature for the district of Hamilton and the district federal courts for East-Tennessee, are held here twice a year, and county courts four times.

It has a large and handsome court house of stone, 3 houses for public worship, for Presbyterians, Baptists, and Methodists. The number of inhabitants, in 1819, was about 1500. It is the largest town in East-Tennessee, has a respectable academy, and is to be the seat of East-Tennessee college, when it goes into operation.

NASHVILLE, in West-Tennessee, on the south bank of Cumberland river, lat. 36°, 4', 190 miles W. of Knoxville, is the largest town in the state, having about 4000 inhabitants. It contains a handsome brick court house, a market house, and a bank; and adjacent is the edifice of Cumberland college, not in operation. The federal circuit court for the state, and the federal district court for West-Tennessee, are held here; as well as the various county and state courts. A respectable academy for young ladies, has been established here. Houses of public worship for Presbyterians, Baptists and Methodists, one for each have been built, and are respectably filled. Cotton is spun here by machinery, and there is also a manufactory of hemp. Most of the buildings, lately erected, are of brick. People of business flourish here, and it is surrounded by a fertile and increasing neighborhood. A steam boat navigation between this place and New-Orleans, is established, and a new road is opening through Madisonville to Natchez.

Manufactures.] In East-Tennessee there are several furnaces, forges, and bloomerics, for the manufacture of iron, a rolling and a

slitting mill, and two paper mills. In West-Tennessee there are also several furnaces and forges, and one or more bloomeries, and a paper mill; also several machines for the spinning of cotton; and several for the manufacture of hemp and cotton into bagging, as well as ropewalks. Salt is also made in great quantities in this state. The value of the manufactures of this state, as estimated by Mr. Coxe, in 1810, was \$3,611,029.

Commerce] The principal exports from this state hitherto have been cotton and tobacco. But the people are beginning to raise hemp in large quantities. Corn, potatoes, beef, pork, lard, and fowls, are carried in boats to New-Orleans, to advantage. Many other articles would answer well. Potash is not made in the state; though most of the wood is suitable for it. Cheese and butter are not exported, and the former not manufactured, though the country might afford both in great plenty. Flour and indigo, peach brandy, cider, and whisky, wool, feathers, and honey, might be added to the catalogue.

The banks of Cumberland are as inviting to the ship builder, as those of Ohio; abounding with excellent materials. And the river rises high enough, in the wet season, to float vessels of any dimensions.

Goods imported are brought from Philadelphia and Baltimore to East-Tennessee in waggons; and to West-Tennessee principally by waggons as far as Pittsburg, and then by water down the Ohio, and up the Cumberland. But Orleans sugar, and some other groceries, come up the Mississippi. The freightage to West-Tennessee by this channel, is about $5\frac{1}{2}$ dollars a hundred. Steam boats now facilitate importation and greatly lessen the expense.

West-Tennessee is well situated to derive advantage from the commerce of the upper countries. It can easily supply itself with the commodities, which shall be exported from any of the vast regions about the Missouri, the Mississippi, and Ohio, and their numerous auxiliary channels; as well as supply them with certain articles, of which their climate forbids the cultivation.

The Mississippi is at present the greatest outlet for exports. But it is expected a water communication, by means of two or more canals, will be opened with the Mobile; between the Hiwassee and Coossee, for East-Tennessee, and between Occachappo and Tombigbee for West-Tennessee; by which the distance to tide water, will be much shortened; and *importation* in particular facilitated. It is expected also that the grand western canal now opening, which is to connect the western waters with the Hudson, through the lakes, will favorably affect the future commerce even of this state, as well as of Kentucky and Ohio.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE AND SEASONS, FACE OF THE COUNTRY, SOIL AND AGRICULTURE, SALT SPRINGS, RIVERS, MOUNTAINS, BOTANY, ZOOLOGY, MINERALOGY, CURIOSITIES.

Climate and Seasons.] The mountains which spread over this and the neighboring states, have a great influence on Tennessee, and render it pleasant and healthful. It has been called the "middle climate of the United States." Between East and West-Tennessee there is a perceptible difference in the climate, though both are in the same latitude, the former is considerably colder than the latter. The season of vegetation commences 6 or 7 weeks sooner than in New-Hampshire, and continues as much later, making a difference of 3 months.

Cumberland river has never been frozen over since 1797. In every winter there are cold days, and generally a few snows; though winters have passed since that period, in which there was too little to be measured. Ten inches is a deep snow, and 10 days an extraordinary term for its duration.

Nor are the summers much hotter than in New-England; nor is the heat so sensibly felt. The nights are cooler, owing to their greater length. And as they are much shorter in winter, the general temperature is more equable.

Many parts of the state have proved as healthy as any section of the globe. It is healthy generally, except where there are stagnant or sluggish waters, to generate noxious gases. In such places, intermittents occur, and other bilious diseases; especially with the people newly settled in such situations.

The piercing northerly winds that prevail during the winter in the Atlantic states, seldom affect the inhabitants on Cumberland river; for they have no great mountains to the northward or westward. The inhabitants of the Atlantic states are also subject to sudden changes in the atmosphere, arising from their vicinity to the ocean. The air that comes from the surface of the sea, especially from the warm gulf stream in winter, must be very different in its temperature from the air that comes across the cold and high mountains; but the great difference between the Cumberland settlers and the ocean, as many great mountains intervene, effectually secures them against the bad effects of those sudden changes. Northeasterly storms never reach this country.

Face of the Country.] The face of the country is greatly variegated, exhibiting many beautiful vallies, and some extensive tracts, which are either level or gently sloping, especially in West-Tennessee. But there are parts of it broken and unfit for culture.

Cumberland mountain passes through the state obliquely, and divides it into two equal vallies, which are intersected by Cumberland and Tennessee rivers. These rivers, in their northern course to the Ohio, where they both empty, converge, and their mouths are but 11 miles apart. One branch of the Tennessee rises in Wythe county, Virginia, and another in Georgia, and in its long course, and various branches, spreads through two degrees of latitude. East-Tennessee, in which is "the *nucleus* of the Allegany mountains," is more broken than West-Tennessee; where the mountains, in their western course, gradually subside, and terminate in a plain, before they reach the Mississippi.

Parts of it are covered with aged forests; parts destitute of timber, called barrens; and there are many shrubberies, and many parcels of open woods without undergrowth.

Soil and Agriculture.] The soil is a mixture; a great proportion of it clay. On Cumberland, Duck, and many of the rivers, it is of a very superior quality.

Corn is produced in abundance. It is excellent for hemp. Cotton does well; and so does wheat and other small grain, where the land is not too rich. It is tolerable for flax, and for sweet potatoes, as well as for the other kinds. Tobacco grows thriftily; it will answer also for upland rice, and for indigo. Vines, garden plants, and fruit trees, grow luxuriantly; and, as far as experiments have been made, it produces the grasses, both for pastures and meadows. But of many of these articles the inhabitants are very negligent.

Salt Springs, &c.] Salt springs and licks are found in various places, especially in West-Tennessee, but no works are yet erected for the manufacture of salt. East-Tennessee is supplied with it from King's works, or Preston's, in Virginia. It is boated down the Holston by the North Fork. West-Tennessee is supplied partly, from the same source, down the Tennessee and up the Cumberland, partly from Louisiana; partly from the Wabash, where it sells at 75 cents a bushel; and partly from several works in Kentucky, boated down the Cumberland. So ample is the provision made by the beneficent Creator, for a full supply of this indispensable commodity, that a scarcity can happen only through the negligence of man.

"On the waters of French Broad river, is a fine, large, clear, medicinal, warm spring. Numbers of persons from the Carolinas, Georgia, and the southern parts of Virginia, have experienced its salutary effects in various complaints. When the improved state of the country shall afford sufficient accommodations, this spring will probably be as much resorted to as those, of the back parts of Virginia, being more convenient to the southern states, and equally efficacious in healing diseases. The heat of the water is such, that at first going into it, it is hardly supportable.*"

* Gov. Bloant.

Rivers.] East-Tennessee is *veined* by a number of boatable rivers, all having a western direction into the Tennessee, Cumberland and Mississippi rivers; the principal of which is the Holston. This river rises in Virginia; and in Tennessee unites with a secondary branch, called the North Fork, 100 yards wide at the mouth, and boatable 60 or 70 miles.

Not far from their junction it receives the Watauga, from North-Carolina; and, a few miles above Knoxville, the French Broad, through a part of the same state, from South-Carolina. The latter enters the state of Tennessee at a breach of the mountain, which constitutes its eastern limit; and is boatable nearly up to that place. From the southeast comes in the Pigeon, and from the northeast the Nolachucky; both boatable.

Below Knoxville the Holston unites with the Tennessee, which rises near the confines of Georgia, and is boatable 30 or 40 miles above this junction.

Its junction with Clinch is lower, at the place called Southwest Point. Clinch rises among the mountains of Virginia; boatable, as estimated, 200 miles. In Anderson county it receives Powell's, a more westerly branch, boatable about 100 miles.

Several rivers not enumerated, and many creeks, contribute their share towards the noble collection of waters. Here boats may convene from several points in the Virginia line, and from near the limits of the Carolinas and of Georgia.

From this grand confluence, the Tennessee, rolling on in a southwestern direction, receives the Hiwassee from Georgia; crosses the S. boundary of Tennessee at the northwest corner of Georgia into the N. E. corner of Alabama; forming the arch of a circle in this state of about 130 miles chord, usually called the Great Bend, recrosses the boundary at the N. W. corner of Alabama; crosses the state in a northern direction; and enters the Ohio through the western extremity of Kentucky, 57 miles from the Mississippi, by a mouth 600 yards wide.

From its entrance into the Ohio, to the Muscle shoals, 250 miles, the current is very gentle, and the river deep enough, at all seasons, for the largest row boats. The Muscle shoals are about 20 miles in length. The bed of the river, in this distance, consists of broken stones, easily removed, and the navigation will admit of much improvement. At these shoals the river spreads to the width of 3 miles, and forms a number of islands, and is of difficult passage, except when there is a swell in the river. From this place to the *Whirl* or *Suck*, where the river breaks through the Great ridge, or Cumberland mountain, is 250 miles, the navigation all the way excellent.

The *Whirl*, as it is called, is in about lat. 35°. It is reckoned a greater curiosity than the bursting of the Potowmac through the Blue Ridge. The river, which a few miles above is half a mile wide, is here compressed to the width of about 70 yards. Just as it enters the mountain, a large rock projects from the northern shore in an oblique direction, which renders the bed of the river

still narrower, and causes a sudden bend; the water of the river is of course thrown with great rapidity against the southern shore, whence it rebounds around the point of the rock, and produces the whirl, which is about 80 yards in circumference. Boats pass the whirl without danger or difficulty. Such is the situation of the shore that boats ascending the river may be towed up. In less than a mile below the whirl the river spreads into its common width, and except the Muscle shoals, already mentioned, flows beautiful and placid, till it mingles with the Ohio. The Tennessee is among the larger rivers in the western country, and boatable about 1100 miles.

West-Tennessee is still better watered. Besides being bordered on the W. by the Mississippi, and bisected by the Tennessee, the Cumberland ranges circuitously through 7 or 8 of its counties. It rises in Kentucky, and is navigable for boats more than 100 miles before entering Tennessee, and 400 afterwards. It joins the Ohio 10 or 12 miles above the mouth of the Tennessee.

Oby, a boatable river, proceeding from Cumberland mountain, unites with the Cumberland 4 miles after the entrance of the latter into the state.

Lower down, perhaps 80 or 90 miles, the Cumberland receives from the southwest, a large fork, 100 yards wide at the mouth, and boatable 40 or 50 miles, which, for want of another name, is called the Cany Fork. It originates on Cumberland mountain: west of which it receives Holly river, from the northeast; and afterwards Rocky river, from the southeast; another, called Falling Water, from the northeast; and Collin's river from the south.

Stone river, from the southeast, enters the Cumberland 8 or 9 mil.s above Nashville; boatable to Jefferson.

Lower down, the Harpath comes in; and near Clarkesville the Red river, from the east.

Elk river and Duck are also worthy of particular attention; the former entering the Tennessee near the Muscle shoals, and the latter lower down; both boatable a considerable distance. Between Duck river, and the Muscle shoals, S. of Tennessee river, is a body of 6,000,000 acres of fine land, for sale, belonging to the United States.

"Wolf, Hatchee, Forked Deer, Obion, and Reelfoot rivers discharge themselves immediately into the Mississippi. These rivers in general are deep, flow with a gentle current, and are unobstructed by rocks and rapids; most of them have exceedingly rich low grounds, at the extremity of which is a second bank, as on most of the lands of the Mississippi. Besides these rivers, there are several smaller ones, and innumerable creeks, some of which are navigable; in short, there is hardly a spot in this country which is more than 20 miles from a navigable stream."*

Mountains.†] The mountains of this state are ribs of the Allegany. Stone, Yellow, Iron, Bald, Smoky, and Unaka mountains, are names applied to different portions of that grand ridge, which separates it

* Gov. Blount.

† See Art. *Face of the Country*.

from North-Carolina. Its general course, as well as that of most of the others, is nearly from the northeast to the southwest.

The principal mountains between this and the Cumberland mountain, are Bay's mountain, Copper ridge, Clinch mountain, Powell's mountain, and Walling's ridge. They are of great length, and nearly parallel to each other, and between them are extensive and fertile vallies, several miles in width.

Cumberland mountain is the largest eminence in the state. The surface of its summit is extensive, and much of it level. There are several roads across it, and settlers along those roads. And though the soil is meagre, it answers for clover, small grain, and orchards. It gives origin to various rivers and creeks; some of which fall into the Clinch, some into the Tennessee, and some into the Cumberland land.

The Cumberland mountain, in its whole extent, from the Great Kanhawa to the Tennessee, consists of the most stupendous piles of craggy rocks of any mountain in the western country. In several parts of it, for miles, it is inaccessible even to the Indians on foot. In one place particularly, near the summit of the mountain, there is a most remarkable ledge of rocks, of about 30 miles in length, and 200 feet thick, shewing a perpendicular face to the southeast, far more noble and grand than any artificial fortification in the known world, and apparently equal in point of regularity.

West-Tennessec is not mountainous. Parts of it are broken with ridges and knobs, but much of it is sufficiently level.

Botany.] The kinds of trees and plants found in this state, are poplar, hickory, black and white walnut, all kinds of oak, buckeye, beech, sycamore, black and honey locust, ash, hornbeam, elm, mulberry, cherry, dogwood, sassafras, papaw, cucumber tree, coffee tree, and the sugar tree. In the eastern district is a species of pitch-pine, useful for boards, timber, and tar. The undergrowth, in many places, and especially in low grounds, is cane, some of which is upwards of 20 feet high, and so thick as to prevent any other plant from growing; there are also Virginia and Seneca snakeroot, ginseng, Carolina pink, angelica, senna, lobelia, Indian physic, spice-wood, wild plum, crab apple, haws, hazlenuts, sweet anise, red bud ginger, spikenard, wild hop, and grape vines. The glades are covered with wild rye, wild oats, clover, buffalograss, strawberries, and pea vines. On the hills, at the heads of rivers, and in some high cliffs of Cumberland, are found majestic red cedars; many of these trees are four feet in diameter, and 40 feet clear of limbs.*

Zoology.] The bison, misnamed buffalo, which abounded in West-Tennessec, at the time of its first settlement by white people, has been long since totally exterminated. And no more can the hunter display among his trophies an elk's skin, or a panther's. Bears and wild cats also are becoming scarce, and beavers so rare as to be a curiosity. A remnant of wolves still lurk in the forests, but seldom commit depredations upon sheep, probably, because, in so genial a climate, they acquire their sustenance on easier terms.

* Gov. Blount.

But the common deer is still so plenty, that venison bears but a moderate price. And there is no scarcity of racoons, foxes, opossums, and gray squirrels. There is also an abundance of rabbits; and some ground hogs, called in New-England, woodchucks; and polecats, another appellation for skunks; and in East-Tennessee there is another species of squirrels, larger than the gray, of a yellowish hue, known by the name of fox squirrels. Beside these are ground squirrels, flying squirrels, rats, mice, and moles, and a few minxes.

All the species of birds common in the United States are found in this country. Wild turkies continue in many parts to be numerous, as do partridges, which in New-England are perhaps with more propriety called quails. They seem indeed to increase, and in some years the pigeons are innumerable. There are a few pheasants, or New-England partridges, and several species of ducks. Parroquets are plenty in West-Tennessee, chiefly in the neighborhood of salt licks. Eagles, hawks, owls, and jays, common and carrion crows, and turkey buzzards, belong to the choir, as well as red birds, sparrows, thrushes, humming birds, and a variety of others.

The rivers contain various kinds of fish; some of them large and of an excellent flavor. There are no trouts, and those called salmon, are a species different from the salmon of New-England. Some of the fish caught, are gars, eels, pike, catfish, buffalofish, drumfish, red horse, &c. Some catfish have been caught that weighed upwards of 100 pounds; and the western waters being more clear and pure than the eastern rivers, the fish are in the same degree more firm and savory to the taste.* In 1799, a fish was caught in the Holston a few miles below Knoxville, of a species unknown there. It was about 6 feet long. The scales, which were large and thick set, gave fire by collision with a flint like steel.†

Some alligators, but not of the largest dimensions, have "worked their passage" up the Mississippi, Ohio, and Cumberland, to the Cany Fork.

Bones and teeth of the mammoth have been discovered in West-Tennessee, in several places. And in 1810, the bones of an extinct species of clawed animals were found in a nitrous cave, in White county, one of the claws of which, though partly decayed, weighed a pound and an half.

Mineralogy.] Iron ore is found in abundance both in East and West-Tennessee, enough for their own wants and to supply the lower countries, which are said to be destitute. Copperas is made in West-Tennessee, which contains a profusion of this mineral, as well as of alum. A great deal of saltpetre is also manufactured in the state, from the nitrous caves; sold, generally, at 12½ cents a pound. Some lead mines have been discovered.

In the mountains there is a plenty of gritstone, from which good grindstones are made. In many places there are suitable rocks for millstones. In West-Tennessee are vast beds of slate, generally of a dark hue, and impregnated with bitumen. There is a variety of excellent flint; different sulphurets; many beds of fossil coal, as

* Gov. Blount.

† Fisk.

well as indications, in innumerable places; of more. Marble is talked of, and probably will be found in many places. But the principal rocks are limestone, which pervade almost the whole country. In West-Tennessee all quarries of whatever kind of rocks are horizontal. In East-Tennessee, they are generally inclined, but some are vertical.

Curiosities] Caves are very numerous; there are also many streams of water, which, after running awhile upon the surface, are lost in a subterranean passage. In White county, there is a mill on one of these subterranean streams, under ground. The country contains many petrifications, of different kinds. In East-Tennessee there are several intermitting springs, and a remarkable one in the adjacent parts of Virginia.

Under this head we mention the *Enchanted Mountain*, about 2 miles south of Brasstown,* on the borders of Tennessee.

There are on several rocks a number of impressions resembling the tracks of turkeys, bears, horses, and human beings, as visible and perfect as they could be made on snow or sand. The latter are remarkable for having uniformly 6 toes each; one only excepted, which appears to be the print of a negro's foot. By this we must suppose the originals to have been the progeny of Titan or Anak. One of these tracks is very large, the length of the foot 16 inches, the distance of the extremes of the outer toes 13 inches, the proximate breadth behind the toes 7 inches, the diameter of the heel ball 5. One of the horse tracks is likewise of an uncommon size, the transverse and conjugate diameters are 8 by 10 inches; perhaps the horse which the great warrior rode. That these are the real tracks of the animals they represent, appears from the circumstance of a horse's foot having apparently slipped several inches and recovered again, and the figures having all the same direction like the trail of a company on a journey. If these tracks are a *lusus natura*, the old dame never sported more seriously. If the operation of chance, perhaps there was never more apparent design. If done by art, they might be intended to perpetuate the remembrance of some remarkable event of war or engagement fought on the ground. The vast heaps of stones near the place, which are tombs of warriors, slain in battle, seem to favor the supposition. The texture of the rocks is soft. The part on which the sun has the greatest influence, and which is the most indurated, is easily cut with a knife, and appears to be of the nature of the pipe stone. Some of the Cherokees entertain an opinion that it always rains when any person visits the place, as if sympathetic nature wept at the recollection of the dreadful catastrophe, which those figures were intended to commemorate.

The springs, which are said to be the sources of some branches of the Tugulo, Apalachicola, and Hiwassee rivers, are very near neighbors in these mountains. A person may visit all these sources in the space of 10 minutes. Their situation is in the form of a triangle, the sides perhaps from 150 to 200 yards.†

* Brasstown is situated on the head waters of Tennessee river, about 100 miles a little east of south from Knoxville.

† The foregoing account was furnished chiefly by Moses Fisk, Esq. of Tennessee.

On the summit of an elevated peak in the Cumberland mountain is a cave of unfathomable depth. A stone dropped into it returns no sound. In Sullivan county is a subterranean brook, sufficient to turn a mill, 400 feet below the surface of the earth

KENTUCKY.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT, BOUNDARIES, DIVISIONS, NAME, HISTORY, RELIGION, GOVERNMENT, POPULATION, MILITIA, BANKS, MANNERS AND CUSTOMS, LITERATURE, TOWNS, ROADS, CANAL, MANUFACTURES, COMMERCE.

Extent.] THIS state lies between 36 30, and 39 10 N. lat. and between 81 30, and 89 20 W. lon. Its length, on the southern line, is 300 miles. Its greatest breadth is 180 miles, and its least 40. The Ohio winds along the whole of its northern side. The number of square miles is 39,000, or 24,960,000 acres. Thirty thousand square miles were supposed to be inhabited in 1817.

Boundaries.] The Ohio, on the N. separates this state from Ohio, Indiana and Illinois. Big Sandy river and Cumberland mountains separate it, on the E. from Virginia; Tennessee lies on the S. and is divided from Kentucky by the parallel of lat. 36 30 N.; the Mississippi, on the W. separates it from Missouri.

Divisions.] This state is divided into 57 counties.

Counties.	Population.		Chief towns.
	in 1800.	in 1810.	
Adair		6,011	Columbia
Barrin	4,784	11,286	Glasgow
*Bath			
Boone	1,534	3,008	
Bracken	2,382	3,706	Augusta
Breckenridge	758	3,430	
Bourbon	12,356	18,000	Paris
Butler		2,181	
Bullet	3,446	4,311	
Clarke	7,523	11,519	Winchester
Casey		3,285	Liberty
Campbell	1,797	3,473	Newport
Christian	2,318	11,020	Hopkinsville
Cumberland		6,191	Burksville
Clay		2,398	

Counties.	Population.		Chief Towns.
	in 1800.	in 1810.	
Caldwell		4,268	
Estle		2,082	
Fayette	12,233	21,370	Lexington
Franklin	4,450	8,013	FRANKFORT
Fleming	4,893	8,947	
Floyd	472	3,485	Prestonsville
Gallatin	1,078	3,307	Port William
Greenup		2,369	
Green	6,025	6,735	Greensburg
Grayson		2,301	
Garrard	6,083	9,186	Lancaster
Henry	3,258	6,777	Newcastle
Harrison	4,263	7,752	Cyntheana
Henderson	1,263	4,703	Henderson
Harden	3,597	7,531	Elizabethtown
Hopkins		2,964	Madisonville
Jessamine	5,438	8,377	Nicholasville
Jefferson	8,395	13,399	Louisville
Knox	1,119	5,875	Barboursville
Livingston	2,787	3,674	Smithland
Lewis		2,357	
*Lexington			
Lincoln	8,555	8,676	
Logan	5,690	12,123	Russellville
Mason	11,405	12,459	Washington
Mercer	9,242	12,630	Danville
Madison	10,380	15,540	Richmond
Muhlenburg	1,517	4,181	Greenville
Montgomery	6,999	12,975	Mountsterling
Nicholas	2,863	4,898	
Nelson	9,087	14,078	Bardstown
Ohio	1,121	3,792	Hartford
Pulaski	3,361	6,897	Summersett
Pendleton	1,573	3,061	Falmouth
Rock Castle		1,731	
Scott	7,659	12,419	Georgetown
Shelby	8,929	14,877	Shelbyville
*Union			
Wayne		5,430	Monticilio
Washington	8,887	13,248	Springfield
Warren	4,645	11,937	Bolin Green
Woodford	6,452	9,650	Versailles
Total 57	220,959	406,511	

Kentucky is entitled to send 10 representatives to congress.
Name.] The river Kentucky gives its name to the state.

* Formed since 1810.

History.] Until 1766, Kentucky was an unnoticed country by white people. This year, John Finley, an Indian trader, travelled through it, and on his return to North-Carolina, gave a flattering account of its beauty and fertility to Col. Daniel Boon. The next year these two men, with others, explored the country. The party was plundered and murdered, except Col. Boon, who remained here till 1771, when he returned to his family, on Yadkin river. In 1775, Col. Boon, and family, with 5 other families, and 40 men from Powell's valley, settled on the banks of the Kentucky, and built Boonsborough fort. In 1777, it was erected into a separate county by Virginia, and into a separate district in 1782. In 1785, a convention was formed for the purpose of procuring an entire separation from Virginia. This was effected the following year. It continued an independent district till June 1, 1792, when it was received into the union, as a member of the United States. The first settlers were exposed to the attacks of the Indians, till Gen. Clarke, in 1778, scoured the western wilderness, and took all their posts, as well as those of the French and English.

Religion.] There are 3 prevailing denominations of Christians in Kentucky, who generally live in harmony with each other, Presbyterians, Baptists, and Methodists. The Baptists are the most numerous. The Presbyterians are the second denomination in point of numbers. They had 50 clergymen, in 1811, generally men respectable for their learning and piety, of whom about 40 were attached to the general assembly of the Presbyterian church, and 10 to the associate reformed synod of Kentucky. The doctrines of these last, as well as those of the first, with some exceptions, are strictly Calvinistic. The Methodists are considerably numerous, and in principle Westleyans.

There are a few Catholics, and still fewer Episcopalians. The Catholics have a bishop at Bardstown. He has scarcely any priests in his diocese.

In Kentucky the laws make no provision for the support of religion; yet since the great *revivals* among them, the Kentuckians may be called a religious people.

Government.] The legislature is called the *general assembly*, and consists of a senate and house of representatives. The senators are chosen by districts, and hold their seats 4 years. One fourth of their number are re-chosen annually. A member must be a citizen of the United States, and 35 years of age; must have resided in the state the 6 preceding years, and the last year in the district. Their number cannot exceed 38. The representatives are chosen annually on the first Monday of August, chiefly by counties, and in a few instances by towns. They cannot exceed 100 in number. A member of the house must be a citizen of the United States, and 24 years of age; and must have resided the two preceding years in the state, and the last of them in the county or town. The assembly convenes on the first Monday of November.

The governor is chosen by the people once in 4 years, and is ineligible the succeeding 7. He must be 35 years of age, and a citizen of the United States; and must have resided in the state the 6 preceding years. The lieutenant governor is chosen for the same period, in the same manner, and must possess the same qualifications. He is president of the senate. No bill, to which the governor dissents, can become a law, unless, upon a reconsideration, a majority of both houses agree to it.

Population.] The population of this state was, in the year

1790	{ 61,133 whites 12,430 slaves 114 free bl. }	73,677	1810	{ 324,237 whites 80,561 slaves 1,713 free bl. }	406,511
1800	{ 179,875 whites 40,343 slaves 741 free bl. }	220,959			

The items of the census of 1810, were as follow :

	white males.	white females.	total.
Under 16 years of age	91,938	86,519	178,457
Between 16 and 45	59,325	55,431	114,756
45 and upwards	17,542	13,482	31,024
Total	168,805	155,432	324,237

The increase in the first 10 years was 147,282; and in the second 10, 185,552. The blacks in both periods increased considerably faster than the whites. At the first enumeration Kentucky was, in point of numbers the 13th state; at the second, the 9th; and at the third, the 7th. The population of this state, is estimated, by Mr. Darby, in 1817, at 580,000.*

Militia.] The militia of this state, in 1817, amounted to 52,919; organized in the manner of the Virginia militia. A considerable part of them are well disciplined and expert marksmen. They signalized themselves for bravery in the late war.

Banks.] The state bank went into operation in 1807, and has a capital of \$1,000,000. Since this period no less than 54 other banks have been incorporated in this state. All, however, are not in operation.

Manners and Customs.] The inhabitants are emigrants from every state in the union, and from almost every country in Europe. There is of course a great mixture of complexion, language, religion, feelings, habits, and character. A considerable number of the early and subsequent settlers were men of education, respectability, and worth; who have imparted a good influence around them; but many of the first emigrants were of a different character, as is common to all newly settled countries. In the parts of the state, where the inhabitants have increased in numbers, wealth,

and taste, the buildings are generally of limestone or brick, and in many instances are elegant; and the state of society is pleasant.

The Kentuckians are proverbially brave, cheerful, and hospitable. Travellers and strangers are sure to meet a welcome reception to the tables and fire sides of the inhabitants in all directions, as they pass through the country. It has been stated, that "the rich hold labor in contempt, and frequently make the possession of slaves a criterion of merit."* We hope this trait of character is not general. The inhabitants, as to their persons, are of full size, well formed, and fair complexions. The temptations to luxury are strong, and too often yielded to by the wealthy.

Literature.] Previous to the separation of Kentucky from Virginia, the legislature of the latter state had incorporated a seminary at Lexington, and entitled it *The Transylvania University*. It was re-incorporated in 1798, with the same name, and then went into operation. In 1818, it was again re-organized under a board of 13 trustees, who are chosen biennially by the legislature. The faculty of the university consists of a president, whose salary is \$3,000; a professor of natural philosophy, &c. salary \$1,200; a professor of natural history, salary 1,200; 2 tutors, salary \$650 each; instructor of the preparatory school, salary \$1,000; assistant instructor, salary \$350. A professor of modern languages has recently been elected. There is a law school connected with the university, under the direction of a professor of law; and a medical college, with 4 professors. The number of students in April 1819, was 130, and fast increasing. The buildings consist of 2 college edifices of brick, one erected several years since; the other, a spacious building 130 feet by 50, 3 stories high, containing a chapel, four recitation rooms, a room for the library, and 30 rooms for students; erected in 1818. The library consists of between 1 and 2,000 volumes. The university, having spent all its funds on the new edifice, depends on grants from the legislature, and the fees of the students to support its officers, and defray its other expenses. These grants it is understood, have been liberal.

A charter for another college at Danville, called *the Kentucky college*, it is understood, was granted early in the year 1819. It has not yet gone into operation.

Respectable schools are increasing in the state, the result of individual exertion. In these the Latin, Greek, and English languages are taught, with grammar, geography, &c.

The legislature a few years since, gave 6000 acres of land, lying in Green River county, for the support of common schools. Each county received its proportionate share of this land; and a board of trustees in each county was vested with the management of it. It has not, as yet, produced one respectable common school.

Towns] LEXINGTON is the largest town in the state. It is situated in a very fertile and delightful plain, about 40 miles in diameter, and half encircled by Kentucky river, which, for a course of 60 miles, is no where more than 20 from the town. The site of the

* Brown's Western Gazetteer.

town was not long since a mere forest ; the first tree was cut down in 1779, and the town laid out in 1782. It now contains 7 houses for public worship, 3 for Presbyterians, and for Episcopalians, Catholics, Baptists and Methodists, one each ; a court house and jail, a market house, theatre, masonic hall, museum, 2 college edifices, 3 banks, 3 printing offices, each issuing a weekly paper and in 1818, 5,269 inhabitants. The commerce of the town is extensive, as it furnishes articles of foreign merchandize to a great extent of country, and is to the western country, what Philadelphia is to the Atlantic states. It is the seat of several flourishing manufactures.

LOUISVILLE, on the banks of the Ohio, at the upper extremity of the rapids, in point of wealth and consequence, is the second town in the state. A very extensive and active commerce is now carried on between this place, and Natchez, New-Orleans and St. Louis. At the lower part of the rapids, a town has arisen by the name of Shipping Port, where several ships have been built. The great command of water power, and the other advantages of its situation, will probably make Louisville, at no distant day, the seat of extensive manufactures. The town contains 2 banks, one of which is a branch of the United States' bank. There are several ropewalks, and manufactories. Population in 1810, 1,357. At present, it is supposed to be about 5,000.

NEWPORT, the seat of justice, for Campbell county, is situated at the junction of Licking river, with the Ohio. Its site is extensive, elevated and beautiful, commanding a fine view both up and down the Ohio river. An arsenal has been established here by the United States, with barracks sufficient for the reception of two or three regiments of men.

FRANKFORT is the seat of government. It stands on the E. bank of the Kentucky, about 30 miles from Lexington, in a low situation ; but the surrounding country is hilly and romantic. It is about one fourth as large as Lexington containing 1,090 inhabitants. The state house is built of stone. The state prison is also erected here. Steam boats of 300 tons come up the Kentucky river as far as Frankfort, when the river is high. Bairdstown, Paris, Washington, and Danville, are flourishing and pleasant towns, containing from 800 to 1200 inhabitants.

Roads.] The roads in Kentucky are in a situation, which might be expected in a country so lately settled ; generally not good.

Canal.] The Ohio, at the rapids in Louisville, descends 22 feet in about 2 miles. Boats pass these with difficulty, and large vessels not without danger.

The legislature of Kentucky, several years since, incorporated a company for opening a canal around these rapids, on the Kentucky side of the river ; and in 1816, the ground was surveyed, and the expense of a permanent canal for vessels of 30 tons, was estimated at \$240,000. This project is probably abandoned, as a company has been formed in Ohio, for opening a canal around these rapids on the Ohio side of the river, from Jeffersonville to Clarksville. The Jeffersonville company expected to commence their work in May of the present year (1819)

Manufactures.] The following account of the manufactures of Kentucky for 1810, was returned to the office of the secretary of state.

				value.
Tanneries	267	hides tanned	70,432	\$255,212
Distilleries	2,000	spirits	galls. 2,220,773	740,242
Looms	24,450	cloth	yds. 4,685,375	2,057,081
Hemp			tons 5,755	690,600
Maple sugar			lbs. 2,471,647	308,932
Powder mills	33	powder	lbs. 115,706	38,561
Fulling mills	33	cloth	yds. 53,038	78,407
Salt works	36	salt	busheis 324,870	324,870
Saltpetre			lbs. 201,937	33,648
Paper mills	6	paper	reams 6,200	18,600
Ropewalks	38	cordage	tons 1,991½	393,400
Cotton bagging	} 13	bagging	yds. 453,750	159,445
Manufactories				
Spinning machines	15	spindles	1,656	
Forges	3			
Furnaces	4			

\$5,098,998

Commerce.] The staple commodities of this state are hemp, wheat, and tobacco. It is but a few years since the planters turned their attention to the culture of hemp. These and the other articles of export are carried down the Ohio and Mississippi, to New-Orleans, whence the foreign articles of consumption are chiefly brought up these rivers. Steam boat navigation will aid the commercial and manufacturing interest of Kentucky, to an extent beyond our means to calculate.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE, FACE OF THE COUNTRY, SOIL AND AGRICULTURE, RIVERS, MOUNTAINS, BOTANY, MINERALS, MINERAL WATERS, CURIOSITIES.

Climate.] THE atmosphere of Kentucky is a very moist one. This renders the ground generally muddy throughout the winter and early in the spring. Colds, rheumatisms, and inflammatory fevers, are very common in those seasons; and these last prevail in July, August, and September. The inhabitants seldom experience the extremes of heat and cold. The greatest heat in 1798, was 89° of Fahrenheit. The weather in the spring and fall is delightful. The S. W. wind blows at least half of the time. The intensely cold winds are all from the N. W. Snow seldom falls deep or lies long. The

winter, which begins at Christmas, never exceeds 3 months, commonly but 2, and is so mild that cattle subsist without fodder.

Face of the Country.] The S. E. part of the state is mountainous. Below the mountains the country for some distance is hilly ; but the body of the state is uneven. There are considerable tracts of level land, and the state at large would be more healthy and pleasant if more hilly. The whole state, below the mountains, reposes upon an immense bed of limestone, from 1 to 20 feet, usually about 8 feet, below the surface. Like other limestone countries, it is not plentifully watered, and has scarcely any mill streams which are not dry after harvest.

Soil and Agriculture.] Probably there is no tract of country of the same extent, which has a better soil than Kentucky. Wheat was, for a short time, the chief article of cultivation. At present little more is raised than is necessary for home consumption. This is owing to the drying up of the mill streams during summer, which renders it impossible for the farmers to make their flour in season for market.*

A great quantity of rye is raised, but unfortunately for the morals of the people, almost wholly for the distilleries. Hemp, has lately been the capital article of produce, and will soon be far more valuable than all the others. From 700 to 1000 weight per acre, is an ordinary crop. Maize is extensively cultivated. The soil rests upon a bed of stiff clay which reaches to the limestone rock, and is capable of receiving manure to great advantage. Some years since a company was formed for the culture of grapes. This undertaking commenced on a capital of 10,000 dollars, and is superintended by a Swiss gentleman. It was in 1803, 10 acres in extent, and promised to be productive. Many private vineyards have since been formed in different parts of the state. Cotton is seldom and with difficulty brought to perfection. Irish potatoes produce well, but succeed better further north ; sweet potatoes are raised with difficulty.

A species of rye was found by the first settlers growing wild in Kentucky, on all the lands near the Ohio. It had a bearded ear, like the cultivated rye, the beard somewhat longer, and the grain less.†

Rivers.] The Mississippi is the western, the Ohio the northern, and the Big Sandy the eastern boundary. The Tennessee runs about 50 miles in the state, and the Cumberland at least half of its course. These rivers have been already described.

Kentucky river rises in highlands, in the S. E. part of the state, and pursues a N. W. course of 280 miles, to the Ohio ; emptying

* The inhabitants who live near the Ohio have their wheat ground in mills of a new construction. The miller possesses himself of a good flat bottomed boat, and lives in it with his family. The wheel is placed on one side of the boat and is turned by the current. The other apparatus of the mill is within the boat. The grain is brought to the bank by the farmer, the boat is then rowed into a rapid part of the stream, and there moored till the process of making the flour is completed. When the grain of one village is ground, the boat is rowed up or down the stream to another.

† Imlay.

121 miles below the Miami, by a mouth 250 yards wide. The course is crooked and irregular, and the banks are generally high and rocky. It is navigable for boats of considerable size, 180 miles, in the winter floods; but as low as Frankfort they can pass only about half the year.

Green river rises in Lincoln county and pursues an irregular westerly course of 280 miles, to the Ohio, emptying 120 miles below Louisville. It is said to have more water in the dry season, than any river in the state. Great Barren river is its principal tributary. It is navigable at all times for loaded boats 50 miles, where there are impassable rapids, above which the navigation is good 30 miles, to the mouth of Barren river.

Licking river rises in the mountains in the southeastern part of the state, near the source of the Cumberland and Kentucky rivers; and after meandering about 200 miles, enters the Ohio, opposite Cincinnati, where it is 80 yards wide. In spring floods, boats laden with 200 barrels of flour, can descend from a distance of 100 miles from the mouth, but for ten months out of twelve its navigation is of little value; and in summer and autumn, it is a moderate mill stream.

Salt river is formed by a great number of streamlets, none of which are of any considerable size. It falls into the Ohio at the Big Bend.

The large rivers of Kentucky are more diminished during the dry season, than those of any part of the United States. The small rivers and millstreams entirely dry up. This is owing to the nature of the country. In the bed of limestone, on which the state rests, there are every where immense numbers of apertures or fissures. Through these the waters of the rivers and creeks sink; and in summer, in many of them, wholly disappear.

Mountains.] Cumberland mountains bound the state for about 80 miles on the S. E. Various other low ranges lie farther west; but we have seen no particular account of them.

Zoology.] The animals common to the western country are found in this state.

In the rivers are plenty of buffalo, pike, and catfish of uncommon size, salmon, mullet, rock, perch, garfish, eel, suckers, sunfish, &c. Shad have not been caught in the western waters.

Swamps are rare in Kentucky; and of course the reptiles which they produce, such as snakes, frogs, &c. are not numerous. The honey-bee may be called a domestic insect, as it is said not to be found but in civilized countries. This is confirmed by a saying which is common among the Indians, when they see a swarm of bees in the woods, "Well, brothers, it is time for us to decamp, for the white people are coming." Nevertheless, bees of late years, have abounded, to their amazement, even two hundred miles N. and N. W. of the Ohio.

The quadrupeds, except the buffalo, are the same as in Virginia and the Carolinas.

Botany.] Black, white, and shagbark walnut, ash, cherry, little inferior to mahogany, sugar maple, and hackberry, grow in the best soils. In inferior lands are found black and white oak, and dogwood, together with the preceding. The magnolia is found near the

mountains. Beside these there are the coffee tree, papaw, cucumber tree, honey locust, black mulberry, and buckeye. The fields and forests are adorned with immense numbers of flowering plants and shrubs. Peaches and apples are abundant and highly flavored.

Minerals.] Iron ore abounds in various places : but the metal is not of the best quality. It is well adapted for hollow ware, but does not answer for malleable iron. This superior sort is procured from Pittsburg. There is an immense quarry of marble on the banks of the Kentucky. It is of a grayish cast, beautifully variegated, and susceptible of a high polish. On the banks of the same river, 20 miles from Lexington, there is a peculiar mineral, which is semi-transparent, always breaks in a *rhomboidal* form, and has the double refracting power of the Iceland crystal.

Mineral Waters.] The *Olympian springs* are near the sources of Licking river, in a delightful and romantic situation. There are three different kinds of water within the space of half a mile. One of these is salt water, impregnated with sulphur and carbonic acid ; another is impregnated with iron, and is an excellent chalybeate ; the third is merely a sulphur spring. In various parts of Kentucky, salt springs were long since discovered, and are frequented by invalids. Several of them contain the sulphates of soda, or magnesia, and a few afford sulphuretted hydrogen gas. In the bed of Licking river, within a mile of its mouth, when the river is low, there are several copious veins, of *chalybeate* water, which are frequented by the inhabitants of the neighboring country. The *salines* at Big Bone, which were formerly employed in the manufacture of salt, are now resorted to by invalids.

A spring near Harrodsburg in Mercer county is strongly impregnated with Epsom salts.

There are 5 noted salt springs or licks in this country : viz. the higher and lower Blue springs, on Licking river, from some of which, it is said, issue streams of brinish water—the Big Bone lick, Drennon's licks ; and Bullit's lick, at Saltsburgh. The last of these licks, though in low order, has supplied the surrounding country with salt at a dollar a bushel, and some is exported to Illinois. The method of procuring water from these licks, is by sinking wells from 30 to 40 feet deep. The water drawn from these wells is more strongly impregnated with salt, than the water of the ocean.

The quantity of salt made at the various salt licks in 1810, amounted to 324,870 bushels.

Curiosities.] The banks, or rather precipices, of Kentucky and Dick's rivers, are to be reckoned among the natural curiosities of this country. Here the astonished eye beholds 300 or 400 feet of solid perpendicular rock, in some parts, of the limestone kind, and in others of fine white marble, curiously checkered with strata of astonishing regularity. These rivers have the appearance of deep artificial canals. Their high rocky banks are covered with red cedar groves.

Caves have been discovered in this country of several miles in length, under a fine limestone rock, supported by curious arches and pillars. Springs that emit sulphureous matter have been found

in several parts of the country. One is near a salt spring in the neighborhood of Boonsborough. There are 3 springs or ponds of bitumen near Green river, which do not form a stream, but empty themselves into a common reservoir, and when used in lamps, answer all the purposes of the best oil. Copperas and alum are among the minerals of Kentucky. It has been asserted that a man, in or near Lexington, having dug five or six feet below the surface of the ground, came to a large flat stone, under which was a well of common depth, regularly and artificially stoned. At the bottom of the falls in the Ohio, is a small rocky island, overflowed at high water, which is remarkable for its petrifications. Wood, roots, and fish bones are found petrified; also a hornet's nest, a bird, and several fish.*

Nearly opposite the mouth of the Big Sciota river, on the second bottom, as it is called, of the Ohio, half a mile distant from the river, are the remains of a military post of great strength, of a square form, embracing 14 acres. These fortifications are in a state of good preservation; time only has marred them. The walls in some places are from 8 to 16 feet high; 30 wide at bottom, and on the top broad enough for a waggon to pass. There are 7 gateways, 3 W. 2 N. and 2 E. each 20 feet wide. From the N. W. angle are the ruins of a covered way, 280 yards in length, to a creek which runs W. of the fort. Two parallel walls, of the size of the other walls, 30 feet apart, project W. to the creek above mentioned; and two other walls of like construction, project E. 150 yards to another creek, making 3 different avenues to water, to supply the fort. The trees growing on this fort, which are supposed to be the *second* or even *third* growth, since the construction of the fort, indicate its great antiquity; and the fort itself evinces, conclusively, that it must have been built by men accustomed to labor, of good information, at least in the science of fortification, and that they probably must have had iron tools. The ruins spread over all parts of this fine western country, prove indubitably, that at some past, distant period, it was thickly inhabited by a warlike people, who either migrated to the south, or were destroyed by wars, or some dreadful pestilence. There are traditions that the parties in these wars, of which the *Six Nations*, were one, and the victorious party, at periods near each other, came from the northwest, and planted themselves near each other, in the vale of the Mississippi, and after a time engaged in wars, which ultimately exterminated one party, and nearly ruined the other. But we are not to expect any thing like a true history of events so distant, of which we have no written records.†

There are phenomena very commonly seen in this state, which we believe are entirely peculiar to it. The inhabitants call them *sinkholes*. These are holes in the earth, from 10 to 200 feet in diameter, and from 10 to 30 feet in depth. They are in the form of a tunnel, or of an inverted frustrum of a hollow cone. Some of

* Imlay.

† See Ohio, art. *Antiquities*.

them are of recent formation ; others, from the size of the trees at the bottom and on the sides, are evidently of long standing. They are supposed to be formed in the following manner. The bed of limestone, every where beneath the surface, has innumerable holes or crevices in it. After heavy rains, large masses of water are collected in basins, in the superincumbent clay. In various instances, the water works its way through the clay, to the bed of limestone ; and, finding one of these fissures, immediately flows through it. As the water descends through the earth beneath, it removes some of it, and thus partially undermines the limestone. After this process has been repeated a sufficient number of times, the limestone, having lost its support, and become too thin to bear its own weight, and that of the trees and earth above, breaks and falls in.

In Big Bone valley in this state, about 20 miles S. W. of Newport, larger quantities of huge animal remains have been discovered, than in any other part of the United States. It is now more than half a century since these first attracted the attention of European travellers, and so many have been borne off, that a few fragments only remain to excite the associations, which this tomb of the mammoths is calculated to inspire.

ILLINOIS.

CHAP. I.

HISTORICAL GEOGRAPHY.

BOUNDARIES AND EXTENT, DIVISIONS, NAME, HISTORY, INDIANS, MILITARY BOUNTY LANDS, POPULATION, GOVERNMENT, EDUCATION, LAWS, ROADS AND CANALS, CHIEF TOWNS, MANUFACTURES.

Boundaries and Extent.] The act of congress of April 1818, admitting this state into the union, prescribes the boundaries as follows : " Beginning at the mouth of the Wabash river, thence up the same, and with the line of Indiana to the northwest corner of said state ; thence east with the line of the same state, to the middle of Lake Michigan ; thence north along the middle of said lake, to north latitude forty-two degrees and thirty minutes ; thence west to the middle of the Mississippi river, and thence down along the middle of that river, to its confluence with the Ohio river, and thence up the latter river along its northwestern shore to the beginning." According to these limits the state is bounded as follows. N. by the Northwest territory. E. by Lake Michigan and Indiana. S E. by Kentucky, and W. by the Mississippi. It lies between lat. $36^{\circ} 57'$, and $42^{\circ} 30'$, N. and between lon. 86° and $91^{\circ} 20'$. It is 390 miles

long, from N. to S. and on an average more than 150 broad, and contains nearly 60,000 square miles.

Divisions.] The following table contains the counties, population and chief towns, in the beginning of the year 1818. The population is increasing with such rapidity, that every statement soon becomes erroneous.

<i>Counties.</i>	<i>Population.</i>	<i>Chief Towns.</i>
Bond	1,382	Perryville
Crawford	2,074	
Edwards	1,948	Palmyra
Franklin	604*	
Gallatin	3,256	
Jackson	1,294	Brownsville
Johnson	678	
Madison	5,456	Edwardsville
Monroe	1,358	Harrisonville
Pope	1,975	
Randolph	2,939	KASKASKIA
St. Clair	4,519	Belleville
Union	2,482	
Washington	1,707	
White	3,539	Carmi
<hr/>		
34,530		

An enumeration made a few months after the above, gave 40,156; as the total population.

Name.] This state derives its name from the river *Illinois*, an Indian word, signifying a *man of full age, in the vigor of his years*. Illinois river, is the river of men.

History.] Until within a few years this country was almost entirely in the hands of the savages. The French, previous to 1756; had some small settlements at Vincennes, Cahokia, and Kaskaskias. But the people were few in number, detached from each other, and lived by hunting and Indian traffic, rather than agriculture.

Since 1803, the United States have purchased, at various times; large tracts of land in this state, from the Indians.

Illinois was a part of the Indiana territory, till 1809, when it was erected into a separate territorial government. In 1818, it was admitted into the union on the same footing with the original states.

Indians.] The Sacs or Saukies, inhabit the country bordering on Sand Bay and Rocky river, in the northwest parts of the state. They have three villages. A part of the tribe is on the west of the Mississippi. Pike states the whole number of souls at 2,850. The Kaskaskias, Cahokias and Peorias reside principally between the Kaskaskia and Illinois. Their numbers have been much reduced in their wars with the Sacs and Foxes. The number of warriors is stated at 250. The Delawares and Shawanese, have a summer residence near the Mississippi, 50 miles above the mouth of the

* Estimated, not enumerated

Ohio. The Piankashaws and Mascontins, about 600 in number, are on the branches of the Wabash.

Military Bounty Lands.] There were in Illinois, in 1817, upwards of sixteen millions of acres of land belonging to the United States, obtained by purchase from the Indians at various times. The portion of these lands which has been surveyed, as soldiers' bounty lands, is the peninsula, between Mississippi and Illinois rivers. The surface actually surveyed, amounts to about 5,530,000 acres, equal to 8,640 square miles; and is divided into 240 townships, of 36 sections each. As the act of congress of May 1812, granting these lands as bounty to the soldiers, who should enlist in the army of the United States, expressly provides, that the several portions to be granted under that act, shall be fit for cultivation, a larger surface than is barely sufficient to satisfy the claims, was necessarily surveyed. Three million five hundred thousand acres were appropriated by congress. This tract lies between lat. $38^{\circ} 47'$ and $41^{\circ} 47'$ N. The land is represented as of excellent quality.

Population.] In 1810, there were 12,282 inhabitants; 168 of whom were slaves. In 1818, the population was 35,220, and very rapidly increasing. Slavery is not now admitted. The first emigrants were principally from Kentucky, and the southern states. The settlements are for the most part on the Mississippi, the Kaskaskia, and its branches; and there are a few on the Wabash and the Ohio.

Government.] The constitution of the state, which was adopted by a convention assembled at Kaskaskia, in August 1818, in all its grand features, is very similar to that of the other states of the union. It provides, however that in *all* elections, all white male inhabitants above the age of 21 years, having resided in the state six months next preceding the election, shall be allowed to vote, and that all votes shall be given, *viva voce*, until altered by the general assembly. The governor is chosen for four years. The sixth article provides that slavery shall not hereafter be introduced into the state, otherwise than for the punishment of crimes. The seat of government for the state is to be at Kaskaskia, until the general assembly otherwise provides.

Education.] At the time this state was admitted into the union, the government of the United States granted to the state, on certain conditions, which have since been complied with, the section numbered sixteen in every township, for the use of the inhabitants of such township for the establishment of schools. In addition to this, three per cent. of the nett proceeds of the United States' lands lying within the state, were granted by congress, to be appropriated by the legislature of the state, for the encouragement of learning, of which one-sixth part must be exclusively bestowed on a college or university. As a further provision for the university, thirty-six sections, or one entire township, together with one before reserved for the same purpose, were vested in the legislature to be appropriated solely to the support of a university.

Laws.] The convention which formed the constitution of the state provided, by an ordinance which is irrevocable without the

consent of the United States, that all lands sold by the United States, shall be exempt from taxation for five years from the day of sale. Also, that the bounty lands granted for military services, during the late war, shall, if they continue to be held by the patentees, or their heirs, remain exempt from taxes, for three years from the date of the patents; and, that the lands belonging to the citizens of the United States, residing without the state, shall never be taxed higher than lands belonging to persons residing therein.

These provisions were made, as the condition on which the U. States made their grants for the support of schools and roads. Similar propositions have been made by congress to all the new states, recently admitted into the union.

Roads and Canals.] Two per cent of the nett proceeds of the United States' lands, lying within the state, are to be expended under the direction of congress, in making roads leading to the state.

A canal has been projected, to unite the head waters of the Illinois with lake Michigan. The Illinois, and the Chicago, a southern river of lake Michigan, are so connected, that, in freshets, it is said, boats can pass readily from one to the other. For encouraging the improvement of this navigation, the government of the United States have appropriated 100,000 acres of land. This canal will open, (probably at less expense than any other,) a communication between the great lakes and the Mississippi; but as vessels, in reaching it, must pass through the straits of Michilimackinac, it is probable that some other canal, connecting Lake Erie more directly with the Mississippi will be first completed.

Most of the settlements in this state are connected by practicable roads, at least for travellers on horseback. A post route passes from Vincennes to Kaskaskia, about 150 miles; travellers are obliged to lodge unsheltered two or three nights.

Chief Towns.] KASKASKIA is the present seat of government. It stands on the west bank of the river Kaskaskia, 11 miles from its mouth. It contains 160 houses scattered over an extensive plain; some of them are of stone, with gardens and large lots adjoining. It contained, in 1810, 622 inhabitants. This place was settled upwards of 100 years ago, by the French of Lower Canada. About half the inhabitants are of French origin.

CAHOKIA stands on a small stream about one mile east of the Mississippi, and 4 miles below St. Louis on the opposite side of the river. It contains about 160 houses, mostly French. It formerly enjoyed a considerable share of the fur trade. Here is a chapel for the Roman Catholic worship.

SHAWNEETOWN is on the Ohio, 9 miles below the mouth of the Wabash. The inhabitants live by the profits of the salt trade. The United States' Saline, in the forks of Saline river, is about 9 miles distant.

WILKINSONVILLE is about half way between Fort Massac, and the mouth of the Ohio. St. PHILIPPE, near the Mississippi, about 45 miles below Cahokia, is a pleasant old French village.

PRAIRIE DU ROCHERS, 20 miles below S. Philippe, contains from 60 to 70 French families and a Catholic chapel. CARMI, on Little

Wabash, 40 miles N. of Shawneetown, is in the midst of a fertile country, and fast increasing.

Manufactures.] In 1810, according to the Marshal's returns, there were in this state, 630 spinning wheels, 460 looms, 9 tanneries, 19 distilleries. The following was the amount and value of manufactured articles.

	Amount.	Value.
Cloth	90,039 yards	\$54,028
Leather dressed		7,750
Spiritous Liquors	10,200 gallons	7,500
Flour	6,440 barrels	32,200
Maple Sugar	15,600 lbs.	1,980
		<hr/> \$103,458

CHAP. II.

NATURAL GEOGRAPHY.

FACE OF THE COUNTRY, SOIL, AGRICULTURE, RIVERS, LAKES, BOTANY, MINERALOGY, CURIOSITIES AND ANTIQUITIES.

Face of the Country] The greater part of this state is flat. Extensive prairies are spread over two thirds of its surface. Between the mouths of the Wabash and the Ohio, the northern bank of the Ohio presents a bold rocky appearance. The banks of the Kaskaskia and Illinois in some places present a sublime and picturesque scenery. Several of their tributary streams have excavated for themselves deep and frightful gulls, particularly those of the Kaskaskia, whose banks near the junction of Big Hill creek, present a perpendicular front 140 feet high, of solid limestone.

Soil.] The soil may be divided into six different classes. 1. Bottoms, bearing a heavy growth of honey locust, black walnut, beech, sugar maple, buckeye, &c. This land is of the first quality, and is found on all the principal rivers. It is of inexhaustible fertility, having been cultivated, in some places, for more than a century, without manure. 2. Newly formed land found at the mouths of rivers. It produces sycamore, cotton wood, water maple, water ash, elm, willow, &c. There are many thousand acres of this land at the mouth of the Wabash, and at the confluence of the Ohio with the Mississippi. It is annually inundated and is very unhealthy. 3. Dry prairies, approaching the rivers and bordering on the bottom land, but more elevated from 30 to 100 feet. These prairies are destitute of trees, except where they are intersected by streams of water and occasional tracts of wood land. 4. Wet prairie found remote from rivers, or at their sources. The soil is generally cold and barren, abounding with swamps and ponds, and covered with a tall coarse grass. 5. Timbered land, moderately hilly, well watered, and of a rich soil. 6. Hills, of a sterile soil, and destitute of timber, or covered with stunted oaks and pines.

Agriculture.] Corn is at present the staple. Wheat does well, except on the bottoms, where the soil is too rich. Tobacco grows to great perfection. Flax, hemp, oats, Irish and sweet potatoes do as well as in Kentucky. Wild grapes are in great abundance, and it is supposed that vineyards, at no remote period, may embellish the hills of the southern half of the state. Cotton is raised for domestic use, but the climate is too cold to warrant the cultivation to any considerable extent.

Rivers.] About 1000 miles, or two thirds of the frontier of this state, is made up of the rivers Mississippi, Ohio, and Wabash, which have already been described.*

The *Illinois* is formed by the Plein and Theakaki rivers which unite in the northwestern part of the state of Indiana, in about lat. $41^{\circ} 48'$ N. The general course of the river is southwest. It enters the Mississippi by a mouth 400 yards wide, 20 miles above the mouth of the Missouri, and 200 above that of the Ohio. It has a very gentle current, is unbroken by falls or rapids, and is navigable through its whole length. The Plein, one of its head branches, interlocks with the Chicago, which flows into lake Michigan.

The tributaries of this river are as follows:—The Mine river, 70 miles long, falls into the Illinois, on the north side about 75 miles above its mouth. The Sagamond, which is navigable 150 miles, enters on the same side 130 miles from the mouth. The Demi Quain enters 28 miles above the mouth of the Sagamond, on the same side, and is said to be navigable 120 miles.

The Sesceme Quian river is a western branch of the Illinois, which it meets about 180 miles from its mouth, is 40 yards wide, and boatable 60 miles, bordered by good land.

De la March, a handsome river, 9 miles above, falls into the Illinois from the N. W. It is boatable 8 or 9 miles.

Michilimackinac river falls into the Illinois from the S. E. 195 miles from its mouth, is 50 yards wide, and boatable 90 miles. At its mouth are 30 or 40 small islands, which have the appearance of a village. Its banks are covered with red and white cedar, pine, walnut, &c. Here are indications of coal.

Crow Meadow river falls into the Illinois from the E. 240 miles from the Mississippi, and 30 above Illinois lake. It is 20 yards wide, and boatable 15 or 18 miles. Opposite the mouth of this river, to the westward, are extensive meadows.

Rainy Island river, 15 yards wide, and boatable 9 miles to the rocks, is an eastern branch of the Illinois, bordered with meadows of fine grass, and timbered with birch, button and peccan; 255 miles from the Mississippi.

Vermillion river, 12 miles farther up, is 30 yards wide and rocky.

Fox river, from the W. 25 yards wide, 5 feet deep, winding through large meadows, falls into the Illinois, 300 miles from its mouth.†

Kaskaskia river, the next to the Illinois in magnitude, rises in the prairies between the Illinois and Wabash, interlocking with the head

* See pages 110, 249, 252.

† Patrick Kennedy's Journal of 1773, published by Hutchins.

streams of a branch of the latter. The entire length of the Kaskaskia is about 150 miles. Its course S. W. by S. nearly. It is navigable for boats about 130 miles. It enters the Mississippi 64 miles below the mouth of the Missouri, and 115 above that of the Ohio.

Au Vase river, which empties into the Mississippi river, 55 miles above the mouth of the Ohio, is navigable for boats 60 miles through a fine prairie country.

Rocky or *Rock* river rises near the northern boundary of the state, and enters the Mississippi 160 miles above the mouth of the Illinois. *Sand Bay* river discharges itself into the Mississippi between the mouths of *Rocky* and *Illinois* rivers.

The rivers which empty into the Ohio from this state are few and inconsiderable in size. The *Saline* is the first. It empties 26 miles below the mouth of the *Wabash*. It is navigable for 30 miles. The famous United States' salt-works are upon this stream, about 20 miles from the mouth. *Sandy creek* empties between the *Saline* and *Fort Massac*. *Cash* river empties 15 miles below *Wilkinsonville*.

The branches of the *Wabash* which rise in this state, and empty into the western side of that river are, *Little Wabash* river; *Fox* river which interlocks with the eastern branches of the *Kaskaskia*, and enters the *Wabash* 50 miles below *Vincennes*; the *Embaras* which empties near *Vincennes*; the *Mascontin*, *St. Germain*, and *Tortue*, all of which empty between *Vincennes* and *Fort Harrison*. The *Brouette*, *Duchat*, *Erabliere*, and *Rejoicing*, all head in the *Illinois* territory, and enter the *Wabash* between *fort Harrison* and *Tippacanoe*.

The *Chicago* river in the northeastern part of this state, empties into the southern extremity of lake Michigan. Its head waters interlock with the *Plein* one of the branches of the *Illinois*.

Lakes] *Illinois* lake is a mere expansion of the river, 20 miles long, and 3 wide, at the distance of 210 miles from its mouth. It has no rocks, shoals, or perceivable current. At the south end of this lake on the W. bank are the remains of old *Pioria* fort, built by the French.

There are many small lakes in this state. Several of the rivers have their sources in them. There are several expansions of rivers which have obtained the name of lakes.

Botany.] The prevailing forest tree in *Illinois* is oak, of which there are many different species. Honey locust, black walnut, mulberry, plum, sugar maple, black locust, elms, bass wood, beech, buckeye, hackberry, coffee nut, sycamore, spicewood, sassafras, crab apple and wild cherry are found in their proper soils. White pine is found on the head branches of the *Illinois*.

Mineralogy.] Copper and lead are found in several parts of the state. Coal has been discovered on the banks of the *Au Vase* river, on the *Illinois* 266 miles from its mouth, and in places near *Kaskaskia* and *Edwardsville*. About half a mile below the coal mine on *Illinois* river, are two salt ponds, 100 yards in circumference. The water is stagnant, and of a yellowish color, but the French inhabitants and Indians make good salt from it.

More than 200,000 bushels of salt are made at the United States' saline, on Saline river, in the southeastern part of the state. These saltworks supply the settlements of Indiana and Illinois. The salt is sold at the works from 50 to 75 cents a bushel.

Curiosities and Antiquities.] On the northwest bank of the mouth of the Wabash, lat. 37° 36' N. is a remarkable cave called the *Great Cave*, which is one of the most noted natural curiosities on the Ohio. The entrance is spacious and singularly uniform.

On the large prairies are frequently found *sinkholes*, of a conical shape, some of which are 150 feet across, circular at the top, gradually narrowing to the bottom, and frequently so steep as to make the descent difficult. At the bottom the traveller finds a handsome subterranean brook, in which he can conveniently allay his thirst and bathe his limbs. These sinks in this limestone country, it is supposed, are formed by the water, undermining the stones and earth, the weight of which produces the excavation.

Ancient fortifications and mounds, similar to those found in Kentucky, Ohio and Indiana are also met with in Illinois. Four miles above the Prairie du Rochers are the ruins of fort Chartres, built by the French. At present it is nearly undermined by the Mississippi, though at the period of its construction it was a quarter of a mile from the river. Fort Massac, 45 miles above the mouth of the Ohio, built by the French, about the middle of the last century, is at present dismantled.

INDIANA.

CHAP. I.

HISTORICAL GEOGRAPHY.

BOUNDARIES AND EXTENT, DIVISIONS, INDIANS AND INDIAN LANDS, HISTORY, POPULATION, INLAND NAVIGATION, LITERATURE, RELIGION, CHIEF TOWNS, COMMERCE.

Boundaries and Extent.] The western boundary of the state is the Wabash river, from its mouth to 40 miles above Vincennes, and thence by a meridian line to the parallel of the south end of lake Michigan, (supposed to be in N. lat. 41° 50'.) Its northern limit is the above mentioned parallel. Its eastern boundary is a meridian line running from the mouth of the Great Miami, until it intersects the aforesaid parallel of the south end of lake Michigan. The Ohio river runs along its southern border. The state is bounded N. by Illinois, lake Michigan and Michigan Territory; E. by Ohio; S. by Kentucky; W. by Illinois. It lies between lat. 37° 45', and 41° 50' N. and lon. 84° 42' and 87° 49' W. Its greatest

length from N. to S. is 287 miles ; and its breadth 155 miles. It contains about 38,000 square miles.

Divisions.] The counties, population in Nov 1815, and chief towns are exhibited in the following table.

<i>Counties.</i>	<i>Population.</i>	<i>Chief towns.</i>
Clark	7,000	Charlestown
*Crawford		
Dearborn	4,426	Lawrenceburg
*Davis		
*Dubois		
*Fayette		
*Floyd		
Franklin	7,970	Brookville
Gibson	5,330	Princeton
Harrison	6,769	CORYDON
*Jackson		Brownstown
Jefferson	4,093	Madison
*Jennings		Vernon
Knox	6,800	Vincennes
*Lawrence		
*Monroe		
*Orange		Paoli
Perry	3,000	Troy
*Pike		
Posey	3,000	Harmony
*Randolph		
*Ripley		
*Spencer		
*Sullivan		Fort Harrison
Switzerland	3,500	Vevay
*Vanderburg		
*Vigo		
Warwick	6,606	Darlington
Washington	3,000	Salem
Wayne	6,290	Salisbury
Total 30	67,784	

Indians and Indian Lands.] Several tribes of Indians still inhabit this state. These are the Weas, and Eel river tribes ; the Miamis and Delawares ; and parts of the Potowotamies and Kickapoos. These tribes have, at various times, ceded large portions of territory to the United States. By the treaties made with them in 1794, 1804, 1805, and 1809, they relinquished more than one third of their lands. By the treaties lately made at St. Mary's, the Indian title to about 10,000,000 acres, was extinguished. The greater part of the lands recently ceded are remarkably fertile, and

* Formed since 1815.

when brought into market, which will be done as soon as they are surveyed, will sell and be settled very rapidly.

History.] Indiana, till January 1801, formed a part of the Northwestern Territory. At that period, it was, together with what now constitutes the state of Illinois, erected into a territorial government under the name of the Indiana territory. In 1809, Illinois was separated from it. In 1816, Indiana was admitted into the union.

In Nov. 1811, a bloody battle was fought at Tippacanoe, 100 miles above Vincennes, between the troops of the United States and the Indians.

Population.] The population of Indiana in 1801, at which period it included Illinois, was 4,875. In 1810, the number of inhabitants in Indiana alone, was 24,520, and in 1815, 68,784, exclusive of Indians. The white population is principally confined to the southern part of the state, bordering upon the Wabash, Ohio, and White Water rivers. The number of Indians does not probably exceed 7 or 8 000.

Inland Navigation.] About 8 miles above fort Wayne, near the northeast corner of the state, one of the branches of the Wabash approaches within a short distance of the St. Mary, a navigable branch of the Miami or Maumee which falls into lake Erie. When very high, these rivers overflow the intervening lands to such a depth, that loaded boats pass over with facility. Of the practicability, therefore, of connecting them by a canal, there can be no doubt; and in a law of Congress appropriating a portion of the public lands to the improvement of inland navigation, 100,000 acres were assigned for defraying the expense of this project. This canal will connect the waters of the Mississippi with those of the great lakes.

Literature.] In the act of congress admitting this state into the union, one section in each township, that is, one thirty-sixth part of the lands, is appropriated to the use of schools. Besides this, one entire township is given for the support of a college.

Religion.] The inhabitants of this state are generally Presbyterians, Baptists and Methodists. They have few regular and settled ministers, but there is a prevailing disposition to receive missionaries. A new sect of religionists has lately sprung up in the eastern part of the state, who call themselves *Harmonians*. They have purchased a considerable quantity of land, which they hold in common, and it is expected that they will soon become wealthy. In some points they resemble the Shakers. Their pastor, it is said, has prohibited marriage; but this is intended to be only temporary. They are industrious and frugal. They have an extensive woollen manufactory.

Character.] The population is made up of emigrants recently arrived from the old states, and from Europe. The settlement near Vevay is composed of Swiss, who emigrated to this country since the year 1805. They speak the French language in its purity, and are a temperate, industrious people, and warmly attached to their new country.

Chief Towns.] **VINCENNES**, formerly the seat of the territorial government, is the largest town in the state. It stands on the east bank of the Wabash, 100 miles from its junction with the Ohio. It was first settled by the French from Lower Canada in 1730. Within a few years it has rapidly increased in population. In 1818, it contained between 2, and 3,000 inhabitants. The country around Vincennes is well fitted for cultivation.

MADISON, the county town of Jefferson county, is on the Ohio, 45 miles above the falls, and is the next town in size. It has grown rapidly within three or four years.

Corydon, the temporary seat of government, is on Indian creek, 15 miles from its junction with the Ohio. It is about 25 miles W. of Jeffersonville. This is to be the seat of government for 8 years, till 1825.

The other towns, which are of much size, or likely to become respectable for population and wealth, are as follows. *Princeton*, the seat of justice of Gibson county, 35 miles S. of Vincennes; *Paoli*, in Orange county, 40 miles east of Vincennes; *Salem*, in Washington county 34 miles N. of Corydon.

Charlestown, in Clark county, in the centre of a rich and thriving settlement, two miles from the Ohio river, and 14 from the falls; *Jeffersonville* in the same county, is on the bank of the Ohio, nearly opposite Louisville in Kentucky, a little above the falls, and commands a most beautiful view of the river. It is expected that a canal will be cut around these falls; the work was to have commenced in May of the present year (1819). If the canal is completed, Jeffersonville will be a place of considerable importance. *New Albany*, in the same county, lies four miles below Jeffersonville, upon the Ohio river. It has had a rapid growth, and is still increasing. *Clarksville*, in the same county, lies at the lower end of the falls.

Vevay, the county town of Switzerland county, in the vicinity of which the vine is cultivated pretty extensively, was a forest in 1814. This delightful village is nearly equidistant from Cincinnati, Lexington, and Louisville; 45 miles from each. *Lawrenceburg*, on the Ohio, 2 miles below the mouth of the Great Miami, is subject to inundation when the river is high. This circumstance has injured its growth. *Brookville*, is 30 miles north of Lawrenceburg, in the forks of the Whitewater river, and has increased with great rapidity within a few years. *Salisbury*, in Wayne county, is 30 miles N. of Brookville; *Brownstown* in Jackson county, is 25 miles east of north from Salem.

Commerce.] The commerce of this country centres at Vincennes. The merchants bring their goods from Canada, down the Wabash, from Orleans up the Mississippi, and from the eastern states down the Ohio, and up the Wabash.

CHAP. II.

NATURAL GEOGRAPHY.

FACE OF THE COUNTRY, SOIL AND AGRICULTURE, RIVERS,
MINERALOGY.

Face of the Country] A range of hills, called the *Knobs*, extends from the falls of the Ohio to the Wabash, in a S. W. direction, which in many places produces a broken and uneven surface. North of these hills lie the *flat woods*, 70 miles wide. Bordering on all the principal streams, except the Ohio, there are strips of bottom and prairie land. Between the Wabash and Lake Michigan, the country is mostly champaign, abounding with woodlands, prairies, lakes and swamps.

A range of hills runs parallel with the Ohio, from the mouth of the Great Miami to Blue river, alternately approaching to within a few rods, and receding to the distance of 2 miles. Immediately below Blue river, the hills disappear, and there is presented to view an immense tract of level land, covered with a heavy growth of timber. North of the Wabash, between Tippacanoe and Outanan, the banks of the streams are high, abrupt, and broken, and the land, except the prairies, is well timbered. Between the Plain and Theakiki the country is flat, wet and swampy, interspersed with prairies of an inferior soil. The sources of rivers are generally in swamps or lakes, and the country around them is low, and too wet for cultivation.

There are two kinds of prairies, the river and the upland prairies; the former are bottoms destitute of timber, and are said to exhibit vestiges of former cultivation; the latter are from 30 to 100 feet more elevated, and are far more numerous and extensive. They are usually bounded by heavy timbered forests, and not unfrequently adorned with crops of small trees. In spring and summer, they are covered with a luxuriant growth of grass, and fragrant flowers from 6 to 8 feet high.

Soil and Agriculture.] The soil of the upland prairies is often as deep and fertile as the best bottoms. The prairies bordering on the Wabash are particularly rich. Wells have been dug in them where the vegetable soil was 22 feet deep, under which was a stratum of fine white sand. The ordinary depth is from 2 to 5 feet. Their product in wheat and corn has exceeded any lands in the state, and equalled any in the western country.

The productions of this state are wheat, Indian corn, oats, rye, flax, hemp, sweet potatoes, Irish potatoes, tobacco, &c. In the neighborhood of Vevay, the vine is cultivated with success. In 1810, in the infancy of their establishment, the Swiss colony had eight acres of vineyard, from which they made 240 gallons of wine, which, in its crude state, was thought by good judges, to be superior to the claret

of Bordeaux. They have now greatly extended their vineyard grounds.

Rivers.] The Ohio washes the southern border of Indiana, from the mouth of the Great Miami, to that of the Wabash, a distance, measuring its windings, of 365 miles.

The Wabash, for a considerable distance, forms the western boundary of Indiana. The Wabash is formed by the union of several small streams, among which are Little river, Massassinway and Eel rivers, all of which rise near the eastern boundary of the state, and in Ohio, between lat. 41° and 42° . The general course of the Wabash, very much resembles that of the Illinois. After the junction of Eel river its general course for 150 miles, is southwest to the mouth of the Mascontin; thence it pursues a southeastern course for 50 miles, to Vincennes; from Vincennes to the Ohio, its general course is south, 100 miles. Its length from its mouth to its extreme source exceeds 500 miles. It is navigable for keel boats, about 400 miles to Ouitanon, where there are rapids.

The principal eastern branches of the Wabash are as follows, beginning in the south. 1. The *Petoka* which empties 20 miles below Vincennes. It is about 70 miles long and flows through a fertile country. 2. *White river* 4 miles above the *Petoka*. It flows through nearly the whole breadth of the state, watering a large tract of rich land. 3. *Deche river* unites with the Wabash, about 8 miles above *Petoka*, and the same distance below Vincennes. It is a crooked short stream. 4. *Little river* enters just above Vincennes. Between this river and the Wabash is a tract of several thousand acres of bottom land of inexhaustible fertility. 5. The *St. Marie*, 18 miles above Vincennes, is about 50 miles long. 6. *Rocky river* empties 60 miles further up. 7. Another river, called also *Little river*, is the only river from the east for 70 miles above *Rocky river*. 8. *Pomme river* comes in 40 miles higher up, and 20 miles below the mouth of *Massassinway*. It rises near the Ohio boundary.

The western bank of the Wabash receives a greater number of rivers than the eastern. Part of these have already been mentioned under the rivers of Illinois. Those which empty in Indiana are the following. Crossing the Wabash at the mouth of *Pomme river*, and descending the stream, the first considerable water is *Richard's creek* 10 miles below. 2. *Rock river* is 10 miles farther down. 3. *Tippacanoë*, rendered famous by the battle upon its banks, empties 8 miles below *Rock river*. Upon this stream, and on the Wabash, above and below its junction, are Indian villages and extensive fields. Below *Tippacanoë*, are *Pine* and *Redwood* creeks and other streams already described under Illinois.*

Whitewater river empties into the Great Miami near the eastern boundary of the state, 20 miles from Cincinnati in Ohio, and five miles in a straight line from the junction of the Miami with the Ohio. It is a beautiful transparent stream, and runs with considerable rapidity almost at all seasons. It cannot be navigated, except at high water, on account of the shoals with which it abounds; but it

* Brown's Western Gazetteer.

is admirably adapted to mills and water works, a great many of which are erected on it. This beautiful river waters a large extent of fine country. Both of its banks are tolerably well settled for 30 miles from its mouth.

The *St. Joseph*, a branch of the Maumee, or Miami-of-the-lakes, rises in the northeastern part of the state, about 60 miles north-east of fort Wayne, and forms a junction with the *St. Mary's* just above this post.

The northern part of the state is also watered by the head branches of the *St. Joseph's* of lake Michigan.

In the northern part of the state are many small lakes, several of which have 2 outlets; one connecting with the northern lakes; the other with the Mississippi.

Blue river empties into the Ohio, 16 miles west of Corydon. Another river, called *Little Blue*, empties 10 or 12 miles further down.

Mineralogy.] There is a coal mine on White river, and they are said to be numerous near the banks of the Wabash. Iron ore is found on White river. Salt wells have been sunk near the Ohio, to a considerable depth, and the water is said to be very strong. There are likewise salt springs on the lands recently purchased from the Indians. Salt, at and above Vincennes is 2 dollars a bushel.

A medicinal spring, near Jeffersonville, has been much frequented. Its waters are strongly impregnated with sulphur and iron.

OHIO.

CHAP. I.

HISTORICAL GEOGRAPHY.

BOUNDARIES AND EXTENT, DIVISIONS, HISTORY, INDIANS, AND INDIAN LANDS, POPULATION, CHARACTER, LITERATURE, RELIGION, ROADS AND CANALS, CHIEF TOWNS, ANTIQUITIES, COMMERCE AND MANUFACTURES.

Boundaries and Extent.] Ohio is bounded on the N. by Michigan Territory and Upper Canada; on the E. by Pennsylvania; on the S. by Virginia and Kentucky; and on the W. by Indiana. It is separated from Michigan Territory by the parallel of latitude of the southern end of lake Michigan, from Upper Canada, by a portion of the national boundary in lake Erie; from Pennsylvania, by a meridian line, drawn from the junction of little Beaver creek with the Ohio, to the northern boundary of the United States in

lake Erie; from Virginia and Kentucky by the river Ohio; and from Indiana by a meridian line drawn from the mouth of the Great Miami to the parallel of latitude of the southern end of lake Michigan. It lies between 38 30, and 42 N. lat.; and between 80 35, and 84 47 W. lon. Its mean length from N. to S is about 200 miles, and its mean breadth 190. Its area may be estimated in round numbers at 40,000 square miles, equal to 25 000,000 acres.

Divisions.] In 1815, there were 45 counties and 320 towns in this state. The following table presents the names of the counties, the population according to the census of 1810; the population in 1815, according to an estimate founded upon the returns of the number of qualified voters, or free white males, over 21 years of age. The total number of qualified voters in 1815 was 64,814; and they are supposed to have been one-fifth of the whole population.

<i>Counties.</i>	<i>Population.</i>		<i>Chief towns.</i>
	<i>in 1810.</i>	<i>in 1815.</i>	
Adams	9,434	10,410	West Union
Ashtabula		3,200	Jefferson
Athens	2,791	3,960	Athens
Belmont	11,097	12,200	St. Clairsville
Butler	11,150	11,890	Hamilton
Cuyahoga	1,459	2,500	Cleveland
Champaign	6,303	10,460	Urbana
Clermont	9,965	12,240	Williamsburg
Clinton	2,674	4,600	Wilmington
Columbiana	10,878	13,600	New Lisbon
Coshocton		3,000	Coshocton
Dark		1,500	Greenville
Delaware	2,000	5,000	Delaware
Fairfield	4,361	13,660	New Lancaster
Fayette	1,854	3,700	Washington
Franklin	3,486	6,800	Franklin
			COLUMBUS
Gallia	4,181	6,000	Gallipolis
Geauga	2,917	3,000	Chardon
Guernsey	3,051	4,800	Cambridge
Green	5,870	8,000	Zenia
Hamilton	15,258	18,700	CINCINNATI
Harrison		7,300	Cadiz
Highland	5,760	7,300	Hillsborough
Huron		1,500	Avery
Jefferson	17,260	15,000	Steubenville
Knox	2,149	3,000	Mount Vernon
Licking	3,852	6,400	Newark
Madison	1,603	2,100	New London
Medina			Mecca
Miami	5,941	5,910	Troy

<i>Counties.</i>	<i>Population.</i>		<i>Chief Towns.</i>
	in 1810.	in 1815.	
Monroe		1,200	
Montgomery	7,722	13,700	Dayton
Muskingum	10,036	11,200	Zanesville
Pickaway	7,124	9,260	Circleville
Portage	2,495	6,000	Ravenna
Preble	3,304	5,509	Eaton
Richland		3,900	Mansfield
Ross	15,514	18,000	Chillicothe
Sciota	3,399	3,870	Portsmouth
Stark	2,734	6,625	Canton
Trumbull	8,671	10,000	Warren
Tuscarawas	3,045	3,880	New Philadelphia
Warren	9,935	12,000	Lebanon
Washington	5,991	3,800	Marietta
Wayne		7,110	Wooster
	<hr/> 230,760	<hr/> 322,790	

History.] The whole country now embraced in the limits of Ohio, was originally included in the charters of Virginia and Connecticut. Virginia claimed all the country between the parallels of 36 30, and 41 N. and Connecticut that from 41 to 42.

In 1784, Virginia resigned to the congress of the United States her whole jurisdiction north of the Ohio; and her title to the soil within the present limits of the state of Ohio, except the tract between the Sciota and Little Miami rivers.

In 1786, Connecticut ceded her claim to the soil and jurisdiction of that part of her territory, which lies W. of a meridian line, 120 miles distant from the western boundary of Pennsylvania. This meridian line passes through the middle of Sandusky bay, near the western extremity of lake Erie.

In 1800, she relinquished her jurisdiction over the part which lies east of that meridian, but retained her claim to the soil. This tract is called, *The Connecticut Reserve*, or *New Connecticut*.

The first settlement made by the whites within the present limits of Ohio, was in 1788, by a party from New-England, under the direction of Rufus Putnam, Esq. who made an establishment at the mouth of the Muskingum.

For several years previous to 1795, an unhappy Indian war had checked the settlement of this territory. In August of that year, however, a treaty was held with the hostile tribes at Greenville, and their differences amicably adjusted. From this period, the increase of population and improvement has been incessant and unexampled.

All the territory of the United States northwest of the river Ohio, including the present state of Ohio, was embraced under one territorial government from 1787 to 1800. In 1800, Ohio was detached from the rest, and placed under a separate territorial

government until 1802, when it was admitted into the union, as an independent state.

Indians and Indian Lands.] The government of the United States has now almost extinguished the Indian title to lands in Ohio.

At the treaty of Greenville, in 1795, twelve tribes attended and sold to the United States all the territory northwest of the Ohio, lying east and south of a line, commencing at the mouth of the Cayahoga, and running up that river to the portage between it and the Tuscarawas, one of the branches of the Muskingum; thence down that stream to the mouth of Sandy creek; thence west, to that point on Loramie's creek, where the portage to the river St. Mary commences; thence, westwardly to fort Recovery, on the head waters of the Wabash; and thence southwestwardly, to a point on the Ohio, opposite the mouth of the Kentucky river.

In 1805, the Indians ceded that part of the Connecticut Reserve, which lies west of the Cayahoga. By the treaty of Detroit, in 1807, they ceded the country north of the Maumee, and E. of a meridian line passing through the mouth of the Auglaize, one of its southern branches.

In 1817, they ceded, with the reservation of certain tracts, all the lands which remained to them in this state. The reservations amount in all to about 700 square miles. With this exception, the Indian title to all lands in Ohio is now extinguished. The cession in 1817, embraced more than 3 million acres.

In 1811, the following fragments of Indian tribes still resided in Ohio, principally in the northwestern corner of the state:

Shawaneese	700
Ottoways	550
Wyandots	300
Senecas	220
Delawares and Munsees	200

1970

Making 1970 for the whole Indian population of the state. Since 1811, this number, it is supposed, has diminished. The Shawaneese reside on the heads of the Auglaize and Great Miami—the Ottoways principally on lake Erie—the Wyandots, Senecas, Delawares and Munsees, on the Sandusky and its tributary streams.*

Population.] The population in 1791, was estimated at 3 000; in 1800, according to the census, it was 42,156; and in 1810, 230 760. In 1820, it will probably not be far from 500,000. The items of the census of 1810 were as follows:

	males.	females.	total.
Under 16 years of age	64 742	61 061	125,803
Between 16 and 45	42 950	3 426	82 376
45 and upwards	11 965	8 717	20,682
Total	119 657	109,204	228,861

* John Johnston, Esq. Indian Agent.

The blacks, who are not included in this table, amounted to 1899.

The population of Ohio will probably continue to increase rapidly, for some time to come, though not with the same rapidity as heretofore. The cheapness of land, the high price of labor, the general fertility of the soil, the security of land titles, and the prohibition of slavery, all conspire to promote immigration to this state. The recent extinction of the Indian title to the large and fertile tracts in the northwestern part of the state, will have an immediate effect on the progress of population in that quarter.

Character.] The population of this state is made up of emigrants from every state in the union, and almost every country in Europe. They have not resided together long enough to form a fixed and uniform character. The mass of the emigrants have been farmers from the northern and middle states, who are in general industrious, temperate, and frugal, with as much intelligence, and even more enterprise, than the people of the states from which they came. Wealth is very equally distributed, and the prohibition of slavery has taken from useful labor the odium so prevalent in the southern states. The sabbath and the ordinances appertaining to it, are more respected, and better supported, and the state of society more regular and better adapted to social enjoyment, than ordinarily falls to the lot of new settlements.

Literature.] One thirty sixth part of the state of Ohio, that is, one section in each town, has been granted by the government of the United States, for the support of schools, besides two or three townships, for the establishment of colleges.

There are three Universities, so called, in this state ; one at Cincinnati, called the Cincinnati University ; one at Oxford, called the Miami University ; and one at Athens, on the Hockhocking, called the Ohio University . The Cincinnati University, has existed only on paper, and probably may never have any other. The Miami University is endowed with a valuable township of land, but the location of the institution, and the unproductive state of its funds, will prevent it from going into operation for some time to come. The institution was incorporated in 1809.

The Ohio University at Athens, is endowed with two townships or 46,000 acres of land. Its annual income is 2300 dollars. It is just commencing its operations. A large and convenient edifice of brick for the accommodation of the institution, was erected in 1818. Its prospects are promising.

The Cincinnati Lancaster Seminary, was opened in April 1815. The funds of this institution have been lately increased by a subscription of 30,000 dollars, and it is intended to erect it into a college. Mathematics, natural philosophy, chemistry, and the learned languages are now taught in this seminary.

There are incorporated academies at Athens, Burton, Chillicothe, Dayton, Lebanon, Marietta, Putnam, Steubenville, Tallmadge, Worthington, and Xenia. Few of these are in a flourishing condition. Schools are generally established throughout the state.

A society has lately been formed, at Cincinnati, for the preservation and illustration of the natural and artificial curiosities of the

western country. Its members are intelligent and active, and are collecting and diffusing much useful information.

Religion.] In 1817, the number of ministers of the several religious denominations, was stated as follows: Presbyterians, 48; Methodists, 34; Baptists, 13; New-Lights of the Christian church, 9; Seceders, 6; Episcopalians, 3; Congregationalists, 3; meetings of Friends in this state and Indiana, 59.

Roads and Canals.] By the law of congress, which provided for the admission of this state into the union, it was stipulated, that three per cent. of the nett proceeds of the United States' lands, within the limits of Ohio, should be applied by its legislature to the opening and improving of its roads. The produce of this fund has hitherto been divided among so many roads, that very little of the good which was anticipated has been derived from it.

It has been proposed to connect the waters of lake Erie with the river Ohio, by means of a canal between the Cayahoga, which empties into lake Erie, and the Tuscarawa, one of the upper streams of the Muskingum. The portage at this place is not more than 10 or 12 miles, and so certain is it that the two waters may be connected by a canal, that in the law of congress, appropriating a portion of the public lands to the improvement of inland navigation, 100,000 acres were assigned for defraying the expense of carrying into effect this project. Of all the canals proposed for connecting the waters of the lakes with those of the Mississippi, this probably will be first opened, and will be a great benefit to the country through which it passes.*

It is supposed that lake Erie may be connected with the Ohio by canals uniting the branches of the Maumee, with a branch of the Great Miami.

Chief Towns.] CINCINNATI, the metropolis of the Miami country, and the most commercial town between Pittsburg and New Orleans, is near the southwestern corner of the state, on the north bank of the Ohio, 20 miles above the mouth of the Great Miami, and distant over land, from Pittsburg, S. W. 300 miles; from Detroit, S. S. W. 275; from Louisville, N. E. 100; and from Lexington, N. 85. In 1810, the population was 2 540. In 1815, it was estimated at 6,500; and in 1819, at 10,000. The number of dwelling houses in July, 1815, was 660, and the whole number of buildings nearly 1100, of which more than 20 were of stone, 250 of brick, and about 800 of wood. In 1819, there were in this town, 9 or 10 houses of public worship, for the different denominations of christians; a steam flour-mill built of stone, 9 stories high; and a great variety of extensive manufacturing establishments; "an extensive Lancastrian seminary; a college granted at the last session of the legislature, and a medical college also."† About 130,000 barrels of flour were inspected in this town, during the year ending April 1, 1819, and more than 120,000 bushels of salt imported and sold. In the two last months of the year 1818, 10,000 barrels of pork were salted here. So rapid are the improvements of this and other towns, and indeed

* Drake.

† O. Farnsworth's letter to the Author, March, 1819.

of this whole western country, that it cannot be expected that a geographer should be able to keep pace with them, and to notice them as they successively come into existence. Lat. $39^{\circ} 06'$ N. lon. 84° .

CHILlicothe, the second town in population and wealth in the state, stands on the west bank of the Scioto river, 45 miles from its mouth, by land, 70 as the river runs. It is pleasantly situated on the borders of an extensive and fertile plain. Population in 1810, 1,369. In 1818, there were 400 houses, and about 3,000 inhabitants. The central position of Chillicothe, gives it many advantages for interior commerce. Its public buildings are 3 houses for public worship, for Presbyterians, Seceders and Methodists, one each; an academy, a court house and jail, and market house, all of brick, but the court house, which is of stone. It has 3 banks, 4 cotton spinning factories, a large steam-mill, and mills for various manufacturing purposes. It is a place of much and increasing business. This town is 45 miles S. of Columbus, 93 E. by N. from Cincinnati. Lat. $39^{\circ} 20'$ N. lon. $82^{\circ} 35'$ W.

COLUMBUS, the capital of the state, stands elevated on the east bank of the Scioto river, 45 miles north of Chillicothe, and near the centre of the state. It was laid out in the year 1812, with a square of 10 acres in its centre, and contained, in 1818, more than 200 houses, and 1500 inhabitants. The public buildings are, a state house of brick, 75 feet by 50, and two stories high; a building for the public offices; and a penitentiary. The town is pleasantly situated on a rising ground, just below the confluence of the Whetstone with the Scioto. The surrounding country is pleasant and fertile. Lat. $39^{\circ} 57'$ lon. $82^{\circ} 55'$ W.

MARIETTA, the oldest town in the state, is situated on the western bank of the Ohio, above the mouth of the Muskingum river, on the peninsula, formed by the Muskingum and Ohio rivers. The site of the town, though otherwise pleasant, is liable to annual inundations; an inconvenience which has much retarded its growth. During seven years, previous to 1806, ship building was carried on here to a considerable extent. This business has recently recommenced. The village contained, in 1817, about 90 dwelling houses and 20 stores. The population of the township, in 1810, was 1,463. Its public buildings are a handsome Presbyterian meeting house, an academy, the public county buildings, and a bank. Lat. $39^{\circ} 30'$ N. lon. $81^{\circ} 20'$ W.

STREUBENVILLE, in Jefferson county, on the Ohio, 109 miles above Marietta, 38 by land, and 69 by water, below Pittsburg, is a flourishing town. It contained in February 1817, 453 houses, and 2,032 inhabitants. The surrounding country, both on the Virginia and Ohio sides of the river, is one of the most wealthy, best peopled, and best cultivated tracts west of the Allegany mountains. It has 3 places for public worship, and a number of flourishing manufacturing establishments. Lat. $40^{\circ} 25'$ N.

ZANESVILLE, in Muskingum county, on the east bank of the Muskingum river, 61 miles N. W. from Marietta, and 72 N. E. from Chillicothe, contained, in 1816, 317 houses, and 1250 inhabitants. The township contained, in 1810, 2,154 souls. The falls in

the Muskingum, near the town, afford facilities for manufacturing establishments. There have been already erected a nail cutting machine, many flour mills, an oil mill, a woollen factory, and several saw mills. It has an elegant court house, 2 banks, and 2 printing offices. Here are two bridges of stone over the Muskingum, connecting the town with Putnam, on the opposite bank. The Muskingum is navigable to this place. The adjacent country is fertile and well peopled. Lat. $39^{\circ} 58' N$.

The above are the principal towns. There are several others of secondary consequence, among which are, Hamilton, in Butler county, 25 miles N. of Cincinnati; Dayton, in Montgomery county, 52 miles N. of Cincinnati; Xenia, in Green county, 55 miles N. N. E. of Cincinnati; Greenville, in Darke county, 80 miles N. of Cincinnati; General Wayne made a treaty with the Indians at this place in 1795. Piqua, in Miami county, on the Great Miami, 130 miles from its mouth, was laid out in 1807, and is a thriving settlement. The surrounding country is unusually fertile; Urbana, in Champaign county, is 34 miles N. E. from Dayton. Athens, is on the Hocking river, 40 miles west of Marietta. Here is the Ohio University; Oxford, in Butler county, the seat of the Miami University, as it is called, is 20 miles N. W. of Cincinnati, and borders upon the state of Indiana.

While we are on the subject of towns, we cannot forbear alluding to a practice of very perplexing effects, which prevails more or less in all our new states, but more particularly in Ohio. We allude to the custom of naming a great many towns in the same state, after some distinguished character, or after older settlements. In the single state of Ohio there are 7 towns by the name of Salem, 9 by the name of Greene, 9 Jeffersons, 9 Madisons, 10 Waynes, and 13 Unions; besides a multitude of less frequent repetitions. Indeed, we confidently assert, that the names of a majority of the towns in Ohio are repeated from two to a dozen times. It is needless to comment upon the inconvenience and perplexity which arise from this custom. It is a fruitful source of geographical blunders; and is besides, a serious embarrassment to social, literary, and commercial correspondence.

Antiquities.] The monuments of the ancient population of Ohio consist of mounds, excavations, and embankments or walls, of various forms and dimensions. Among them all, there is not a single edifice, nor any ruins which prove the existence, in former ages, of a building composed of imperishable materials. No fragment of a column; no bricks; nor a single hewn stone, large enough to have been incorporated into a wall, has been discovered.

The remains which have attracted more attention than any others in the Miami country, are 6 miles from Lebanon, above the mouth of Todd's-fork, an eastern branch of the Miami. On the summit of a ridge, at least 200 feet above the valley of the river, there are two irregular trapezoidal figures connected at a point where the ridge is very much narrowed by a ravine. The wall, which is entirely of earth, is generally 8 or 10 feet high; but in

one place, where it is conducted over level ground for a short distance, it rises to 18 feet. Its situation is accurately adjusted to the brow of the hill; and as there is, in addition to the Miami on the W. deep ravines on the N. the S. E. and S. it is a position of great strength. The angles in this wall, both retreating and salient, are numerous, and generally acute. The openings, or gateways, are not less than 80! There is nothing, either external or internal, that deserves the name of a ditch. On the declivity, immediately to the southwest of the rampart, there are three parallel curvilinear roads, or narrow terraces, about 40 rods in length, which command an extensive view both up and down the Miami. The area of the whole inclosure is almost 100 acres. About 20 poles E. from that part of the wall which crosses the ridge, there are 2 mounds, each nearly 9 feet high. They are not far asunder, and walls are extended from them, in opposite directions, to the adjoining ravines. From these mounds there run to the northeast, along the ridge, a couple of roads or elevations, 16 feet in width, and 3 in height. They are nearly parallel for a quarter of a mile, when they diverge, but at length unite on the further side of a small and irregular mound. One of the roads from Cincinnati to Chillicothe passes over the northern part of this interesting work.

About 10 miles from Chillicothe, on one of the steep and elevated ridges of Paint-creek, there is a work, in its situation, somewhat resembling the fortification just described. The wall is conducted along the verge of the hill, and is by estimation a mile and a half long. It was formed entirely of undressed free-stone, brought chiefly from the streams 250 feet below, and laid up without mortar or cement of any sort. It is now, like all the walls of a similar kind, which have been discovered in the western country, in a state of ruin. It exhibits the appearance of having been shaken down by an earthquake. The surrounding region is abundant in iron ore; and the inhabitants speak of excavations, which they suppose to have been formerly made in search of that mineral. However this may be, it is certain that the vestiges of a great population are still discernible in the valley of Paint-creek.

On the elevated point of land above the confluence of the Great Miami and Ohio, there are extensive and complicated traces, which, in the opinion of military men eminently qualified to judge, are the remains of very strong defensive works.

The above are but one or two out of a multitude of vestiges of the ancient population. The following general observations on the antiquities of the western country, are from *Drake's Picture of Cincinnati*, to which work we are also indebted for the preceding descriptions.

1. The lakes, and the gulf of Mexico, appear to be the northern and southern boundaries of the region containing these ancient works; on the E. they are bounded by the Alleghanies; on the W. they extend to the Pacific ocean; but are found of the greatest magnitude and grandeur in some of the southern provinces of

Mexico. From that country, indeed, they seem to decrease in size, beauty, and regularity, in a ratio corresponding directly to the distance.

2. They are generally found in the vallies of the larger streams ; and on the most elevated plains or terraces, which are provincially termed the second and third banks, counting from the river.

3. The forests, over these remains, exhibit no appearances of more recent growth, than in other parts. Trees, several hundred years old, are in many places seen growing out of the ruins of others, which appear to have been of equal size.

For what purpose were these works erected ? Those situated on hills, are generally in the strongest military positions of the country, and were perhaps without exception, designed for defence in war. The valley remains were probably for ordinary abode in times of peace. Many of them may have been intended for defence, as well as habitations. All the mounds were probably burying places.

Are these vestiges referable to a nation, which has suffered expulsion from this part of the continent, and become extinct, or to the ancestors of the existing Indian tribes ? Professor Barton, whose knowledge of the aboriginal inhabitants of this country exceeds that of any other man, originally entertained the former of these opinions. He conceived that the *Toultects*, a nation which the hieroglyphical annals of Mexico represent to have migrated across the continent from N. to S. in the sixth and seventh centuries, were the people who constructed these remains. But the Professor afterwards seems to have changed his opinion, and expressed his conviction, that throughout the whole of N. America, there had once been a much more numerous and civilized population, than what existed when the interior was first explored by the Europeans ; and which has degenerated into the present savage hordes. As one out of many facts, which appear to confirm the last mentioned theory, it may be observed, that in the larger mounds of the Miami country, fragments of earthen ware have been found, which have in their composition a perfect resemblance to that fabricated since the discovery of America, even up to the present time, by many of the tribes low on the Mississippi.

Militia.] In the year 1808, the militia amounted to 15,351 men ; according to the returns to the department of war, Dec. 1818, the number of the militia was 61,438.

Government.] The legislative authority of this state is vested in a general assembly, consisting of a senate, to be chosen biennially, and a house of representatives, to be chosen annually, both by the people ; the representatives to be proportioned by law from time to time, to the population. The senators are to be divided into 2 classes by lot, the seats of the first class to be vacated at the expiration of 1 year, of the second class at the expiration of the second year, so that one half are to be annually chosen. The house of representatives have the power of instituting impeachments, which are to be tried by the senate.

The supreme executive power is vested in a governor, to be chosen biennially, by the people. He is eligible only 6 years in any term of 8 years.

The judiciary power is vested in a supreme court, in courts of common pleas in each county, and justices of the peace. The judges of the supreme and county courts are to be appointed by a joint ballot of the two houses of assembly, to hold their offices for 7 years.

"In all elections, all white males, above the age of 21 years, having resided in the state one year next preceding the election, and who have paid or are charged with a state or county tax, shall enjoy the right of an elector," in the district where he actually resides at the time of the elections.

Laws.] Slavery is forever excluded from this state by its constitution. The constitution of the state guarantees the recovery of fugitive slaves; but by the decision of the courts, those brought into the state are free from the moment of their arrival. *White* male inhabitants *only*, enjoy the right of political suffrage. By a statute enacted in 1804, and amended in 1807, free negroes are prohibited from settling in the state, without giving bond and security, that neither they nor their children shall become public charges; but this provision is considered unconstitutional, and it is believed is not enforced. By the same laws, negroes and mulattoes are prohibited from giving testimony against white persons. These laws have been made to keep away the runaway slaves from the adjoining states.

Banks.] There are 29 chartered banks in this state, of which 4 are at Cincinnati, 3 at Chillicothe, 2 at Zanesville, and the others, scattered over the state, in the largest towns in the several counties.

Commerce.] The commerce of this country, till within a few years, was carried on in flat bottomed boats, keel boats, and barges. Steam boats have now come very extensively into use. From these boats great advantages are expected. No country on earth, can be more benefitted by this invention, than that which borders on these western waters.

The reduction of the voyage from New-Orleans to Cincinnati, from 100, to 30 days, is equivalent to an approximation of the two places, or to the annihilation of two thirds of the distance.

The exports consist of flour, of which 130,000 barrels were inspected for exportation, in Cincinnati, between April 1818, and April 1819; pork, of which 10,000 barrels were here salted for exportation in the 2 last months of 1818; tobacco, of which about 8000 kegs are annually exported from the same place. Of the amount of exports from other places on the rivers, and on lake Erie, we are not informed. The value of the exports from this state, in 1817, as officially stated, was \$7,749. To the articles above enumerated, may be added, whisky, peach brandy, beer and porter; pot and pearl ashes, cheese, soap and candles; hemp and spun yarn; walnut, cherry and blue ash boards; cabinet furniture,

chairs, &c. In the autumn of 1810, it is estimated, that above 40,000 head of swine were driven from this state to the Philadelphia, Baltimore and other eastern markets.

The imports of East Indian, European and New-England goods, and of the manufactures of the middle states, have hitherto been received from Philadelphia and Baltimore, but chiefly from the former. It is not difficult to foresee, however, that at no distant time the ingress of foreign merchandize will be through other channels. A portage of 300 miles, over high and rugged mountains, must at all times, be more expensive than ascending a navigable river five times the distance. Whenever the general government shall complete the road from the navigable waters of the Potowmac to those of the Ohio, factories and other mercantile houses will probably be established on the former of these rivers. When the grand canal from lake Erie to the Hudson is completed, New-York will probably be one of the inlets for foreign goods. But the great emporium of the western country, in future, must be New-Orleans. To effect this change in the channel of importation, but three things are necessary, 1. more extensive and wealthy mercantile houses in that city; 2. an improvement in the navigation of the Ohio at the falls, which has already commenced; and 3. an increased number of steam boats. The imports from the Missouri territory are lead, peltry and skins; from Louisiana, besides foreign goods, sugar, molasses, cotton, rice, salted hides, &c. From Tennessee and Kentucky, cotton, tobacco, saltpetre and marble; from Pennsylvania and Virginia, bar, rolled and cast iron, millstones, coal, salt, glass ware, pine timber and plank.

Steam boats have commenced running on lake Erie.

Manufactures.] The following is the imperfect, official summary of the value of the manufactures of this state in 1810

1,943,433 yards of linen, woollen and cotton goods, worth	\$999,538
217 tanneries making leather, worth	153,581
1,212,266 gallons of distilled spirits, and 35,140 gallons of beer	584,892
Cut nails	64,729
Iron made; machines for carding wool and spinning: cotton, fulling, paper, gunpowder, and oil mills	159,636
3,023,806 pounds of maple sugar	302,380
	<hr/>
	\$2,264,750

In the above summary many articles are omitted. The real, total value of manufactures in Ohio, in 1810, is estimated at \$2,894,290.* They have greatly increased in variety and value since that period.

* Tench Cox. Esq.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE, DISEASES, FACE OF THE COUNTRY, SOIL, AGRICULTURE, RIVERS, ANIMALS, BOTANY, MINERALOGY, MINERAL SPRINGS, CURIOSITIES, ISLAND.

Climate.] The country on the Ohio has been commonly considered warmer in the same parallels, than the Atlantic states. The difference was supposed by Mr. Jefferson, to equal what would result from three degrees of latitude. Accurate observations, however, which have been made at Cincinnati, for a series of years, prove that there is no foundation for this opinion; or at least, if there be a difference, it cannot equal one third of what has been mentioned. The opinion that the climate on the Ohio is more liable to sudden and extreme changes, than that of the eastern states is equally erroneous. Consumption, rheumatism, and other diseases ascribed to changes of the weather are less frequent in Ohio than in the east. This country has been pronounced moister than the Atlantic states, but the observations from which this opinion was formed, were made in an unsettled part of the country, and are therefore not applicable to such districts as are cultivated. The diminution of moisture which follows the clearing and cultivation of wood lands, is such, as to support the conclusion, that when the country shall be extensively opened, its atmosphere will become as dry, as that of any part of the union.

The following are the general results of a long series of accurate observations, on the climate of this country, made at Cincinnati, principally, between 1806, and 1815. The mean annual range of the thermometer is 100. The whole range between 1797 and 1813, was 116°. The southwest wind is the most prevalent during nine months of the year, and the northwest, during the other three, viz. December, January, and February. The northwest wind is the most prolific source of thunder-gusts; the southwest occasionally sends forth hurricanes.

The amount of rain and snow, which falls annually, may be stated at about thirty-six inches. The quantity of snow which falls at Cincinnati is inconsiderable. The deepest that has occurred, was perhaps ten inches; but four is about the ordinary depth. In the northern part of the Miami country, however, and on the waters of lake Erie, the snows are both deep and durable.

More than 30 years ago, the Moravian Missionaries, residing on the waters of the Ohio, observed, that in advancing northwardly from that river, the climate becomes colder in a greater ratio than

the increase of latitude. This is confirmed by a variety of more recent observations.*

Diseases.] The following remarks are applicable more particularly to the western part of the state. The diseases connected with the climate, are those which are common in the same latitudes east of the Alleghanies. Some of them, however, are less violent and frequent. Of this kind is the *Pulmonary Consumption*; which in the Atlantic cities, destroys from a fourth to a sixth of all who die; while in Cincinnati it produces not more than one-twentieth of the deaths. The *pleurisy* and *peripneumony* occur every winter; but seldom prevail to any great extent. The *croup* is a formidable disease, annually carrying off a number of children. The *premature decay of teeth*, frequent in all variable climates, is less common here, than in some parts of New-England. *Rheumatism* occurs, but is not so frequent and formidable as in the northern states.

Remitting and intermitting fevers, including *Ague*, prevail every autumn; but are seldom malignant, if properly treated at an early period. The diseases to which immigrants are most liable, are bilious and typhus fevers. This is especially the case with the natives of New-England and New-York, who in coming here undergo a change of climate greater than they seem generally to suppose. They should, therefore, endeavor to arrive in the country late in the autumn; and before the ensuing summer, place themselves in the most healthy situations which can be found. If they are careful in this respect; and in the heat of summer shun the evening air, and the noon-day sun; and avoid what is denominated a bilious habit, very few will suffer an attack; but without such attention a *seasoning*, as it is termed, will probably be experienced the first summer after an arrival from the North. In the second, whether the first be sickly or not, there is but little danger.

The *jaundice* is a pretty common disease in this country; but it seldom destroys life. *Inflammation of the liver* is met with occasionally, but not oftener than in the same latitudes of the maritime states. The *spotted fever* of the northern states has never prevailed here; but its successor, the *typhoid pneumonia* (vulgarly called in this country, the cold plague) affected a very considerable number in the winters of 1812, 1813 and 1814. The *cholera infantum* is more fatal to children, than any other complaint. Of adults, the greatest number die with bilious and typhus fevers; with pulmonary inflammation, and with affections of the liver, stomach and bowels. In the months of June and July, more children die than in any other. The greatest mortality among adults is generally in August, September and October.

The *Goitre* is an endemic of the eastern part of this state, and the western parts of Pennsylvania.†

Face of the Country.] There is not much variety in the face of the country. The southeastern parts of the state are hilly, but not

* Drake's Picture of Cincinnati; which contains many valuable observations on the climate of the western country.

† Dr. Drake.

mountainous ; the remainder is generally level, except in the vicinity of the Ohio, and some of its larger tributary streams. In some parts, also, in the country dividing the waters of the Ohio from the lakes, there are tracts extending several miles so flat, that the water stands till midsummer, rendering it waste land.

The hills and mountains on the east side of the Ohio generally increase in magnitude, till they unite with the great ridge, commonly called the Alleghany ; but on the west side they decrease till the country becomes almost a dead level.

Soil and Agriculture.] No part of the United States unites more advantages in point of health, fertility, variety of productions, and foreign intercourse, than that tract which stretches from the Muskingum to the Scioto and Great Miami rivers.

The flat or bottom lands on the Ohio are remarkably fertile ; in some places, however, their extent is small. A small proportion of the hills are unfit for agricultural purposes, being either too steep, or faced with rocks.

The lands on the various streams which fall into the Ohio, are now accurately known, and may be described with confidence. They are interspersed with all the variety of soil which conduces to pleasantness of situation. Large level bottoms, or natural meadows, from 20 to 50 miles in circuit, are every where to be found bordering the rivers, and variegating the country in the interior parts. It is said that in many of these bottoms a man may clear an acre a day, fit for planting with Indian corn, there being no underwood, and the trees growing sparsely, very high and large, needing nothing but girdling. Very little waste land is to be found in any part of this tract of country. The hills are of a deep, rich soil, covered with a heavy growth of timber, and well adapted to the production of wheat, rye, indigo, tobacco, &c.

Twenty two bushels of wheat per acre may be stated as the average produce in the Miami country, though it sometimes amounts to forty. An extensive variety of excellent apples have been introduced, and succeed well. Peaches attain to great perfection. Pears, cherries, and plums are common.

The agriculture of this, as of other new countries, is not of the best kind. Too much reliance is placed on the extent and fertility of their fields, by the farmers, who in general consider these a substitute for good tillage. They frequently plant double the quantity they can properly cultivate, and thus impoverish their lands, and suffer them to become infested with briars and noxious weeds.

Rivers.] The Ohio which runs along the whole southern border, a distance of 420 miles, has already been described.* The tributaries to the Ohio, are the following, beginning in the east :

The Muskingum heads near the sources of the Cayahoga of lake Erie, and enters the Ohio immediately below Marietta. It is a gentle river, confined by banks so high as to prevent its overflowing. For 60 miles from its mouth, the land on each side is hilly. Beyond that distance, it is more level and fertile. The river has sufficient water

* See page 249.

to carry 12 grist mills. It is 150 yards wide at its confluence with the Ohio, 180 miles below Pittsburg, and navigable by large batteaux and barges to the Three Legs ; and by small ones, to the lake at its head. From thence, by a portage of $7\frac{1}{2}$ miles, a communication is opened to lake Erie, through the Cayahoga.

The Hockhocking enters the Ohio several miles below the mouth of the Muskingum. It is navigable to Athens, forty miles from its mouth, for large keel boats. Six miles above Athens are rapids which prevent the ascent of boats.

The Scioto, which empties 150 miles below the Muskingum, opens an extensive navigation. It is passable for keel boats for 200 miles, and for canoes almost to its head, where there is a portage of only 4 miles to the Sandusky, a good navigable stream that falls into lake Erie. Through the Sandusky and Scioto lies the most common pass from Canada to the Ohio and Mississippi ; one of the most extensive and useful communications that are to be found in any country. The stream of Scioto is gentle, and no where broken by falls. At some places in the spring of the year it overflows its banks providing for large natural rice plantations. Salt springs and coal mines abound in the country adjoining this river. But the people on its banks are greatly afflicted with the fever and ague.

The Little Miami enters the Ohio seven miles above Cincinnati. Its course is nearly parallel with the Great Miami, about 20 miles distant. For navigation it is of little consequence, but it abounds with valuable mill seats.

The Great Miami empties at the S. W. corner of the state. Its head waters interlock with branches of the Wabash, the Maumee and the Scioto. It has generally a rapid current, but no considerable falls. It flows through a wide and fertile valley, which in spring and autumn is liable to partial inundation. It is navigable, in moderate freshets, for keel and flat bottomed boats, to Dayton, near the mouth of Mad river.

The rivers which flow into lake Erie, are the following ; beginning in the west.

The largest and most westerly stream is the Maumee, formerly called the Miami-of-the-Lakes. It is formed by the junction of the St. Mary's and St. Joseph's. It is navigable for more than 100 miles, in all seasons, for batteaux, and for vessels of 60 tons burthen, as far as the rapids, nearly opposite Fort Meigs, 18 miles from Lake Erie.

Sandusky river rises near a branch of the Great Miami, between which is a portage of 9 miles. It pursues a N. E. course, and empties into the S. W. corner of Sandusky lake. It is a considerable river, with level land on its bank, its stream gentle all the way to its mouth, where it is large enough to receive sloops. It is navigable for boats almost to its head.

Huron, Vermillion, and Rocky rivers, next in order, are small streams. The Huron is navigable about 18 miles.

Cayahoga or Cayuga, sometimes called the Great river, empties in at the south bank of lake Erie, 40 miles eastward of the mouth of Huron ; having an Indian town of the same name on its bank. It is navigable for boats ; and its mouth is wide, and deep enough to

receive large sloops from the lake. Near this are the celebrated rocks which project over the lake. They are several miles in length, and rise 40 or 50 feet perpendicular out of the water. Some parts of them consist of several strata of different colors, lying in a horizontal direction ; and so exactly parallel, that they resemble the work of art. The view from the land is grand, but the water presents the most magnificent prospect of this sublime work of nature ; it is attended, however, with great danger ; for if the least storm arises, the force of the surf is such, that no vessel can escape being dashed in pieces against the rocks. Col. Broadshed suffered shipwreck here, and lost a number of his men, when a strong wind arose, so that the last canoe narrowly escaped. The heathen Indians, when they pass this impending danger, offer a sacrifice of tobacco.

Grand river is a fine bold stream ; its current rapid, banks elevated and often precipitous. It is not navigable. There are several mill dams across its stream, one, within half a mile of the lake.

Besides these there are several smaller streams of no great consequence.

Animals.] No country was originally better stocked with wild game of every kind than this. Innumerable herds of deer and wild cattle were sheltered in the groves, and fed in the extensive bottoms that here abound ; an unquestionable proof of the great fertility of the soil. Turkeys, geese, ducks, swans, teal, pheasants, partridges, &c. were a few years since, from observation, believed to be in greater plenty here, than the tame poultry are in any part of the old settlements in America. But on the approach of settlers, buffaloes disappear ; geese, ducks, and swans are now seldom killed. Bears, deer, and turkeys, are now the principal game. At the falls of Ohio, geese and swans, a few years since, were plenty.

The rivers are well stored with fish of various kinds, and many of them of an excellent quality. They are generally large, though of different sizes : the cat fish, which is the largest, and of a delicious flavor, weighs from 6 to 90 and even 100 pounds.

Botany.] The prevailing growth of timber and the more useful trees are maple or sugar tree, sycamore,* black and white mulberry, black and white walnut, butternut, chesnut ; white, black, Spanish, and chesnut oaks, hiccory, cherry, buck wood, or horse chesnut ; honey locust, elm, cucumber tree, gum tree, iron wood, ash, aspen, sassafras, crab apple tree, paupaw or custard apple, a variety of plum trees, nine bark spfce, and leather wood bushes. General Parsons measured a black walnut tree, near the Muskingum, whose circumference at five feet from the ground was 22 feet.

White and black oak and chesnut, with most of the above mentioned timbers, grow large and plenty upon the high grounds. Both the high and low lands produce vast quantities of natural grapes of various kinds, of which the settlers universally might make a sufficiency for their own consumption of rich red wine. Cotton is said

* One of these, near Marietta, measures 60 feet in circumference, and being hollow, will contain 18 or 20 men. *Harrie.*

to be the natural production of this country, and to grow in great perfection. Hops also grow spontaneously.

The sugar maple is the most valuable tree, for an inland country. Any number of inhabitants may be forever supplied with a sufficiency of sugar, by preserving a few trees for the use of each family. A tree will yield on an average about four pounds of sugar a year, and the labor is very trifling. The sap is extracted in the months of February and March, and granulated, by the simple operation of boiling, to a sugar equal in flavor and whiteness to the best Muscovado.

Mineralogy.] Near to the Yellow Spring in Green county, 64 miles from Cincinnati specimens of silver ore have been dug up, but not in sufficient quantities to be worked. On the banks of the Hockhocking are found inexhaustible quarries of freestone and beds of iron ore. Beds of white and blue clay suitable for the manufacture of glass, crockery, and earthen wares, have also been found here in some few instances. Red bole and many other useful fossils have been observed upon the branches of the Hockhocking, Mines of pit coal are inexhaustible from Pittsburg many miles down the river, and in other parts of the state. There are valuable salt springs, on the Scioto river, also near the Muskingum, and on the military tract, which are the property of the state.

Mineral Springs.] The most noted watering place in the Miami country, is the Yellow Spring, in Green county, 64 miles from Cincinnati, and two from the falls of the Little Miami. It is a copious vein which bursts from a fissure in the silicious limestone rock; and is, at the distance of a few rods, precipitated into a ravine more than a hundred feet deep. On its passage thither, it has deposited an immense bank of brownish ochre. An attempt has been made to prepare a paint from this deposit, which has been attended with the most flattering success.

The springs most resorted to by the people of Cincinnati, are the *salines* at Big Bone, 22 miles southwest of the town, in the state of Kentucky.

There is said to be a famous *Oil Spring*, 42 feet deep, 3 feet diameter, on Duck creek, yielding abundance of pure oil, of the smell of British oil, which burns well in lamps. The accounts we have seen, are extravagant, if not wholly fabulous.

Curiosities.] Under this head we mention the extensive meadows, or as the French call them, *Prairies*, which answer to what in the southern states, are called *savannas*. They are a rich plain without trees, and covered with grass. Some of these are 30 or 40 miles in extent. In passing them as far as the eye can reach, there is not a tree to be seen; but there is plenty of deer, wild cattle, bears, and wolves, and innumerable flocks of turkies. In clearing out a spring near some ancient ruins, a copper coin has been found on the bank of the little Miami, not far from its entrance into the Ohio, four feet below the surface of the earth. From *a fac simile* it appears, that the characters on the coin are the *Old Persian*. In digging a well in Cincinnati, the stump of a tree was found in a sound state 90 feet below the surface, and at 94 feet another, which had evident marks of the axe.

At Sunbury is said to be a spring, which has strong petrifying qualities.

Island.] Blannerhasset island in Ohio river, opposite Belpre, 16 miles S. W. of Marietta, contains 300 acres of excellent land. It bears the name of its owner, a gentleman of fortune from Ireland who purchased it in 1801, built a splendid house, converted the island into a beautiful garden, enjoyed it till 1810, when the house was burnt, the garden totally destroyed, and the whole is now a sad-denying waste. *Sic transit gloria mundi.*

MICHIGAN TERRITORY.*

CHAP. I.

HISTORICAL GEOGRAPHY.

BOUNDARIES AND EXTENT, ORIGINAL POPULATION, HISTORY, LITERATURE, RELIGION, GOVERNMENT, DIVISIONS AND POPULATION, FORTS, INDIANS, MILITIA, MANNERS AND CUSTOMS, TOWNS, INLAND NAVIGATION, BANK, MANUFACTURES, COMMERCE.

Boundaries and Extent.] THIS territory is a peninsula bounded S. by Ohio and Indiana, from which it is separated by a line drawn due east from the southwardly bend of lake Michigan, until it intersects lake Erie, or Detroit river, the boundary not being yet precisely ascertained; W. by a line drawn from said southwardly bend through the middle of lake Michigan to its most northern extremity,† which separates it from Illinois and the N. W. territory, thence due N. to the treaty line in the middle of lake Superior; N. and E. it is bounded by Upper Canada, from which it is separated by a small part of lake Superior, St. Mary's river, Huron lake and river, lake St. Clair, and Detroit river.‡ The greatest length of the territory from S. E. to N. W. is 500 miles, from N. E. to S. W. it is 300, between lat. 41°, 30' and 47° N. lon. 82° 10 and 86° W. The number of square miles, including land and water, is estimated at 150,000.

Original Population.] The Huron tribe of Indians were the aborigines of this country. They were anciently very numerous

* The author is indebted to his excellency governor HULL for a considerable part of the information contained in the following account of this territory.

† It is not yet ascertained whether the most northern extremity of lake Michigan is in Green bay, or an intermediate point between Green bay and the straits of Michilimackinac.

‡ It is uncertain whether the southern boundary will terminate on Detroit river or on lake Erie. If the last should prove to be the case, that lake of course should be mentioned as the S. E. boundary of this territory.

and powerful, and their settlements extended over Michigan, and the peninsula between lakes Michigan and Superior. The missionaries of the Jesuits, as early as 1648, penetrated among them; and a few years after, there was a chapel built at the falls of St. Mary's, and another on the island of St. Joseph. The great body of the tribe were converted by these missionaries to the profession of Christianity. The Six Nations, however, invaded the country about 20 years afterwards, and massacred or dispersed the nation of Hurons, against whom they had long entertained an implacable hatred.

History.] In 1667, Lewis XIV, sent a party of soldiers to this territory to protect the French fur traders. The soldiers, between that time and 1683, built a fort at Detroit, and another at Michilimackinac, and soon extended their commerce west of lake Michigan to the Indians on the Mississippi. The Iroquois, however, steadily opposed their progress. The French government neglected the settlements, and it never flourished as a colony. The war of 1756 dispossessed the French of all their North-American possessions; and, among the rest, of this territory. It remained in a neglected state in the hands of the British, till the peace of 1783 gave it over to the United States, and a governor was appointed in July, 1787, for all the territory N. W. of the Ohio. In 1796, the fort of Detroit was ceded by the English to the United States, agreeably to treaty; and this fine peninsula was formed into a county, called the county of Wayne.

In 1805, it was formed into a distinct territorial government.

In 1812, July 17. Fort Michilimackinac was surrendered to the British, and on the 16th of August following, Fort Detroit, with about 1400 troops, and remained in the hands of the British, till the peace of 1814.

Literature.] A corporate body, styled "The University of Michigan" has been formed, similar to that which exists in New-York and Georgia. This body has power to institute colleges, academies and primary schools, to appoint and commission all professors and teachers, to form regulations for the schools, to superintend them, and to determine what books shall be used in them. Already have this body instituted a primary school, and a classical academy, and erected a handsome brick edifice for their accommodation, in the city of Detroit. A sabbath school, also, has been formed here, which promises to be very useful to the poorer class of people, by rescuing them from a state of ignorance and vice; and to benefit the morals of the community at large, by removing contagion, and introducing in its place religious knowledge.

Religion.] The greater part of the inhabitants of this territory till lately, were Catholics, descendants of French traders and were sunk in a state of deplorable ignorance and wickedness. Lately the state of religion and morals has been rising. A flourishing Presbyterian church and society has been established in the city of Detroit, to which the ordinances of the gospel are regularly administered, the benefit of which is already visible in the existence of a Bible, a moral, and a humane society. Missionaries of the Method-

ists, and other denominations, have visited this country, and their labors have been followed with good effects.

Government.] The legislative power is vested in a governor and a supreme court, composed of three judges, all appointed by the president of the United States. The executive power is vested in the governor; and the judicial in the three judges, and such civil magistrates in the various districts as the governor shall appoint. There are at present a judge of probate in each district; and justices of the peace, who hold jurisdiction of *personal actions* in cases where the damages do not exceed \$100. The supreme court has original jurisdiction in all other cases. The ministerial officers are a marshal for the territory, and a deputy marshal for each district.

Divisions and Population] Michigan is divided into the 4 following districts, which contained, in 1810, the number of inhabitants annexed. The districts are named in the order they lie from S. to N.

<i>Districts.</i>	<i>Population.</i>	
Erie	1,340	} Of these 120 were free blacks, and 24 slaves.
Detroit	2,227	
Huron	580	
Michilimackinac	615	
	<hr/> 4,762	

Besides these were about 150 persons employed in the Indian fur trade. The present population (1819) is estimated at about 15,000 souls. The white settlements are chiefly on the strait of Detroit, and the rivers Miami, Raisin, Huron, and lake St. Clair.

Forts.] The fort at Detroit is a regular work, of an oblong figure, covering about an acre of ground. The parapets are about 20 feet in height, built of earth and sods, with 4 bastions, the whole surrounded with pallisadoes, a deep ditch and glacis. It stands immediately back of the town, and has strength to withstand a regular siege, but does not command the river.

Fort St. Clair is N. of the lake of this name, on the W. side of the S. point of lake Huron, commanding the entrance into it.

Fort Michilimackinac is handsomely situated on the S. E. side of the island of this name on a bluff rock, rising from 1 to 200 feet from the water, almost perpendicular in many places, extending about half way round the island. It overlooks, and of course commands the harbor, a beautiful semicircular basin of about 1 mile in extent, and from 1 to 5 or 6 fathoms in depth, and sheltered from lake Huron by two islands stretching across its mouth, and leaving only a narrow ship channel, by which to enter the harbor. From the fort you have an uninterrupted view into lake Huron to the N. E. and into lake Michigan on the W.; it is, however, entirely commanded by the high ground in its rear, where is a stockade defended by 2 block houses and battery in front. There is a good bomb proof magazine in the fort.

Indians.] The following tribes of Indians reside in this territory, under the superintendence of the governor, viz.

<i>Tribes.</i>	<i>No.</i>	<i>Residence.</i>
Chippewas	250	On the river and lake St. Clair, river Rouge, Ecorce, Saganau bay, Arbicrotch, a large Indian village, about 30 miles S. W. of Michilimackinac, and on the S. part of lake Superior, and the river St. Mary's.
Ottawas	1500	On the Miami; Grand river, which falls into lake Michigan on the E. side; Arbicrotch.
Pottowottamies	1000	Rivers St. Joseph, Raisin, and Huron of Erie.
Wyandots	500	Detroit river, and Sandusky in the state of Ohio.
Munsees	150	River Huron of Erie, and near the Wyandot village, at Brownstown on Detroit river.
Shawanese	140	With the Wyandots at Brownstown.
Delawares	100	With the Munsees on the Huron.
<hr/>		
		5,890

Militia.] In 1811, the militia consisted of two regiments, each containing 8 companies; a legionary corps, consisting of 4 companies, 1 of cavalry, 1 of infantry, 1 of artillery, and 1 of riflemen; a battalion consisting of 4 companies of infantry; and a corps at Michilimackimac of 2 companies. The officers were appointed by the governor, and held their offices during pleasure. A garrison of the United States at Detroit at this time contained 129 effective men, and 37 women and children. With the increase of inhabitants the militia has increased.

Manners and Customs.] The first immigrants had all the common characteristics of new settlers. The descendants of the original French settlers employed in the fur trade, were in a degraded and miserable state, occasioned by the nature of their employment, and association with Indians. In consequence of immigrations from other parts of the country and wise local establishments, the state of society has much improved within a few years; and with the increase of population, which is becoming rapid, there is a prospect of an increase of the blessings of the social state.

A disposition to establish schools, and to read useful books, is spreading, and producing good effects among the people. The chief amusements are dancing, and riding in carioles on the ice in winter.

Towns.] DETROIT stands on Detroit river, 18 miles N. of lake Erie, and 10 S. of lake St. Clair. The old town was wholly destroyed by fire in 1805. The new town is well laid out; the streets

cross each other at right angles, and the situation is pleasant. It contained in 1810, including the garrison, 770 inhabitants, and 80 dwelling houses.

Inland Navigation.] Three of the largest lakes border on this territory, and it is bounded on two sides, and one end, wholly by navigable waters. When the western wilds shall have become extensively peopled, this will probably be a rich, powerful, and highly commercial state. There is no inland tract on the continent whose natural advantages for trade are superior to those of Michigan.

The following has been given as the extent of its navigable waters.

	miles.
Lake Michigan, navigable	260
— Huron	250
— St. Clair and Straits	56
Detroit river	26
Lake Erie	72
Rivers emptying into lake Erie	175
Do. entering the straits of Detroit and St. Clair river and lake	100
Rivers emptying into lake Huron	150
Do. do. Michigan	700
Total	1789

Vessels of no more than 100 to 150 tons ascend the river St. Mary's, as far as the rapids. The navigation, in some places, is impeded by sand bars, which render it necessary for vessels to unlade, in order to pass them. A steam boat plies between Buffalo, at the N. E. end of lake Erie, in New-York, through lakes Erie and Huron, to Michilimackinac. The passage is made in 12 days.

Bank.] A bank has been established in this territory, at Detroit, which is now in operation.

Manufactures.] The following is a list of the manufactures in this territory in 1810 :

Sides of leather	2,720	Pounds of candles	6,500
Saddles	60	Yards of woollen cloth	2,405
Hats	600	Yards of flax stuffs	1,195
Gallons of whisky	19,400	Yards of hemp mixed	20
Gallons of brandy	1,000	Barrels of cider	1,500
Pounds of soap	37,000		

The value of the manufactures of this territory in 1810, was estimated at \$50,000.

Commerce.] Detroit and Michilimackinac are both ports of entry in this territory. The exports from the former, in 1810, amounted to \$3,615, of which only \$44 were of foreign produce. No returns were received from the port of Michilimackinac. The state of Ohio furnishes this country with beef, pork, whisky cheese and butter.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE AND DISEASES, FACE OF THE COUNTRY, SOIL AND AGRICULTURE, RIVERS, LAKES, BAYS, BOTANY, ZOOLOGY, ISLANDS, ANTIQUITIES.

Climate and Diseases.] THE climate is cold and healthy. Winter sets in about the middle of November, and lasts till the middle of March, without much variation. Very little snow falls; but the ice on the rivers and borders of the lakes, is always good for travelling, through the winter, and greatly facilitates intercourse between the settlements. The fever and ague and goitres are the common diseases of the territory.

Face of the Country.] The general face of the country is flat. Nothing like a mountain is known. The eastern shore of lake Michigan has a range of highlands of considerable extent. It commences about 100 miles S. of Michilimackinac, and reaches southward upwards of 50 miles. They are mere sand hills fronting perpendicularly on the lake, and are some of them 300 feet high.

Soil and Agriculture.] The soil is generally rich. A narrow strip on the western shore of lake Huron, from half a mile to a mile in width, has generally an indifferent soil. Back of this the lands have a very fine rich soil. It is estimated that upwards of 20,000,000 acres of this territory are excellent. Of these the Indian title to 8,000,000 was extinguished by a treaty held at Detroit, Nov. 1807, with the chiefs of the Pottawattamie, Ottawa, Wyandot and Chippeway tribes, beginning at the mouth of the Miami-of-the-lakes, and extending to White Rock, in lake Huron. The United States have about 4,000,000 acres of this cession, a great part of it fine land, at their disposal. The agricultural productions, in 1810, were 20,000 bushels of apples, 10,000 of maize, 12,000 of wheat, 8000 of oats, 100 of barley, 1308 of buckwheat, 12,540 of potatoes, 3024 of turnips, 1000 of peas, and 1500 barrels of cider.

Rivers.] St. Mary's river, Huron, or St. Clair river, and Detroit river, flow on the northern and eastern borders of the territory.

The St. Mary's is the outlet of lake Superior. At the distance of 22 miles from that lake are the straits and falls of St. Mary. Here the river is less than a mile wide, and falls, in $\frac{3}{4}$ of a mile, 25 feet. It is very rapid, and, being filled with large rocks, its waters are in a continual foam. Boats can pass down safely in the centre, of the falls, but their common passage is along the shore. Below the falls, the river widens, and is in some places 10, in others 20 miles wide. It is filled with beautiful and fertile islands. Its length is nearly 70 miles. About 9 miles above the entrance of the

river into lake Huron, is the southern point of the island of St. Joseph, an island 120 miles in circumference, belonging to the English, on which a small stockade is erected, and a company stationed. There is a good ship channel on both sides of it, and the river is navigable for ships of any size to the falls. Here, on the American bank, is a small settlement of 20 houses; and on the other, the northwest company have a very extensive establishment.

St. Clair river is the outlet of lake Huron, and runs nearly S 40 miles. It is generally $\frac{1}{4}$ of a mile wide. The land along the shore is low. It is navigable for the largest vessels, except at its discharge into lake St. Clair, where there is a bar of sand with $6\frac{1}{2}$ feet of water.

Detroit river is 28 miles long, and runs in a S. W. direction 12 miles, and thence due S. 15 to lake Erie. It is navigable for the largest ships, and is generally from a mile to a mile and a half, and in some places three miles broad.

Huron river, rises in the country west of lake St. Clair, and running eastwardly 60 or 70 miles, falls into that lake 30 miles N. of Detroit. It is navigable only for boats. The town of Gaudenhatten is on this river, planted by the Moravian brethren.

Saganaum river is 30 miles long, empties into the bottom of the bay of this name, and is navigable only for boats. The Chippewa Indians have several villages on this river; and there are two *salines* running into it, which it is supposed, if worked to the extent of which they are capable, would furnish a supply of salt for this whole country. Belle river, a water of St. Clair lake, has good situations for settlements, on its banks, as has Huron river, 14 miles below, which is an ancient French settlement. The Indians have a reservation at the mouth of this river of 3 miles square, on which is Machonee's village. Settlements are rapidly making on this river.

The river Rouge rises in the country W. of Detroit river, and, running eastwardly 60 miles, falls into Detroit river, 6 miles below the town. It is generally 100 feet wide. The largest vessels of the lake find a safe and convenient winter harbor 5 miles up this river. It is navigable 50 or 60 miles for boats. It has fine lands on its banks.

The river Raisin runs in a S. E. direction about 70 miles, and falls into lake Erie 15 miles from Detroit river.

The river Huron of Erie, rises near the source of the St. Joseph, and after a course of 100 miles S. E. empties into lake Erie.

The river St. Joseph heads in Indiana, is extremely crooked, and, winding westward more than 200 miles, falls into lake Michigan, by a mouth 200 yards wide, near its southern extremity. It is navigable for boats almost the whole distance, but not at all for large vessels.

Black river, or Le Noir, heads near the Miami-of-the-lakes, and enters Michigan 14 miles N. of the St. Joseph's with which it runs parallel 70 miles. Its banks are lined with excellent land. It is boatable, and has several Indian towns on its head branches. Proceeding N. 10 miles, you pass Marame, a short river, with a capacious bay at its mouth; and further on, Barbue, of about the same

size, course, and length. Next is *Raisin*, a short river, 50 miles long. Its banks abound with grapes, whence its name.

Grand river, which is 20 miles N. of Raisin, is the largest tributary of lake Michigan. It crosses the territory from S. E. to N. W. and is boatable to its source. A canal connecting it with the Saganaum, a water of Huron lake, it is said, could be opened at a small expense, and is seriously contemplated. Mastigon, White, Rocky, Beauvois, St. Nicolas, Marguerite, Monistic, Aux Sables, Lasiotte, and Grand Traverse, are rivers of different sizes, falling into the east side of Michigan lake. These rivers, at their mouths, expand and form circular bays, behind sand hills near the lakes, several miles in width, which at certain seasons are literally covered with geese, ducks, and other water fowl, who resort here to fatten on the *falle avoine*, which abounds here.

The Miami-of-the-lakes, empties into lake Erie, at the S. E. corner of Michigan territory.

Lakes.] More than half of Michigan, half of Huron and St. Clair, a part of Superior, and probably a part of Erie, belong to this territory.

Bays.] Saganaum bay sets up in a S. W. direction, from the western side of lake Huron. It is 60 miles long and 30 broad at its mouth, which is 110 miles from Detroit. It is navigable for large vessels. Thunder bay lies N. of this. It is small and is only remarkable for the very frequent thunder storms prevalent there in the warm season. The most considerable *Bays* on the east shore of Michigan, are *Sable* and *Grand Traverse*; the last is 12 miles deep, and 4 or 5 broad.

Miami bay, resembling a lake, at the mouth of Miami-of-the-lakes, is 18 miles in circumference. The interior of the Michigan peninsula contains many small lakes and ponds, from which many of the rivers and streams issue which fall into the surrounding lakes.

The *Strait* connecting lakes Huron and Michigan, called *Lac des Illinois*, is 15 miles long, of an oval figure, and subject to a flux and reflux.

Botany.] The forest trees are oaks of every variety, black walnut, hickory, white and sugar maple, beech, white and swamp ash, elm, whitewood, sycamore, cedar, aspen, black poplar, butternut, pines of every variety, prickly ash, and white thorn. The wild fruits are cherries, plums, blackberries, strawberries, whortleberries, and cranberries. The cultivated fruits are peaches, pears, plums, nectarines, apples, cherries, currants, strawberries, grapes, and melons. The wild flowers of the country are beautiful and are of many varieties; likewise the vines and shrubbery.

Zoology.] The wild beasts are the beaver, otter, martin, racoon, muskrat, fox, bear, rabbit, opossum, squirrel, black squirrel, and deer. The only tame beasts are horses, cattle, and sheep. The Canadian horses are small, and those brought into the country rarely live but a few years.

The birds are the snipe, woodcock, plover bittern, crane, canvas-back-duck, duck and mallard, wood duck, teal, swan, wild goose, wild turkey, partridge, grouse, quail, pigeon, robin, blackbird, wood-

pecker, lark, bluebird, humming bird, jay, snowbird, bat, crow, raven hawk, and bald eagle.

The fish of the lakes and rivers are white fish, mackinac trout, weighing from 18 to 60 pounds, muskungeen, black, white, and rock bass, sturgeon, pickerel, perch, common trout, weighing from 4 to 5 pounds, suckers, pike, and herring.

Bees abound in the woods. The Indians make great use of their honey. They are smaller than the domesticated bee, and their honey is inferior.

Islands.] The island Michilimackinac, the Gibraltar of the north-west, lies between Michigan and Huron, and is $7\frac{1}{2}$ miles in circumference. It is highest in the centre, handsomely crowning, resembling, as you approach it at a distance, a turtle's back, which gave name to the island. Michilimackinac, signifies *a turtle*.* This island enjoys a pure air, and the finest water, and is a healthy spot. The ground on which the fort stands is 155 feet above the level of the lake, and 100 yards from the shore. The fort is neatly built, and exhibits a beautiful appearance from the water. It has already been described. The harbor is deep and safe. On the N. E. side of the island, near the shore, and 80 feet above the lake, is an arched rock. The arch is 20 feet in diameter, at the top, and 30 at the base. Near the centre of the island on a plain stands an isolated conical rock, in the form of a sugar loaf, 50 feet in height. It is perforated in various places, and the holes are filled with human bones. The Skull-rock in another part of the island exhibits the same appearances. The island is one mass of limestone. It cannot be said that the soil in this island is rich. By the aid of manure the people produce very superior vegetables in gardens about their houses. There is but one cultivated farm of any extent on the island, the soil being hard and stony. The rest of the land is covered with wood, cedar, sugar maple, beech, basswood, birch &c. principally the former. The waters around this island abound in fish—particularly the *white fish*, which is about the size of shad, exceeding (say travellers) all others in delicacy,—and the trout, (weighing from 15 to 75 pounds) which, is, when boiled, of a yellowish cast, and surpasses the salmon, which it most nearly resembles, both in flavor and fatness.

The village of *Macana* lies in a circular form, around the harbor, on an inclined plane, reaching from the foot of the rock, on which the fort stands, to the water's edge. The streets are narrow, but regular and cleanly; the houses and other buildings are compact, mostly of one story, and built of the lightest materials. In the winter of 1806, there were about 300 inhabitants, mostly French Canadians, intermarried with the *aboriginals*, who live, during the *dead season*, much "like the bears, by sucking their claws,"—and *smoking*. For months together, many of them taste neither bread, meat, nor vege-

* The Indian tradition concerning this island is, that *Michapons*, the chief of spirits, sojourned long in its vicinity: that a mountain on the border of the lake, was the place of his abode, and they called it by his name. It was here they say, that he first instructed man to fabricate nets for taking fish, and where the greatest number has been taken. On the island he left spirits, named *Imakinakos*, who gave the name *Michilimackinac* to this island. *Herriot*.

tables—subsisting wholly on fish; the taking of which, and the cutting and hauling, by the help of their dogs, their scanty pittance of fuel, constitute their winter's employment. There are, however, exceptions. Several Americans are settled here, who are industrious and thriving; and some respectable mercantile families live in a style of extravagance and dissipation unknown on the banks of Connecticut river.

Here the merchants from Montreal meet their *Winterers*, or agents from the Indian country, receive their peltries, and fit them out again with new *equipments*, or supplies for their trade, and *part again*;—the latter returning to their wintering grounds, around lakes *Michigan* and *Superior*, up the *Missouri*—or on the various branches of the *Mississippi*;—and the former returning to Montreal, with the fruits of their industry, for the purpose of accumulation or enjoyment.

The navigation usually closes about the middle of November and opens about the 10th of May;—being thus shut out from all intercourse with the rest of the world, for nearly six months. During the summer they have constant communications with Detroit, and the States, with Montreal, the *Mississippi*, and Lake *Superior*, by traders and occasional visitors; whose only mode of travelling is by *water*, and mostly in *birch-bark canoes*, moving, when employed by travellers whose object is expedition, at the rate of 100 miles, or more, a day.

It is from the *Fur Trade*, that the importance of Michilimackinac results;—it having long been the grand *depot* of those who carry it on, and the key to all the north-western country. Its commercial importance may be estimated from the amount of goods entered at the custom house there, in 1804, which, including what were brought direct from Montreal, and what came by the way of New-York, yielded a revenue to our treasury, of about \$60,000. Vast quantities of corn and sugar, raised and manufactured by the Indians in the vicinity, and by them brought to market, are sold here to the merchants, for the support of their *Engages*, or people employed in the *fur trade*.*

Manitou island is in lake Michigan, near its eastern shore, 6 miles long, and 4 broad. The *Castor islands* are a chain of small inlets stretching from Traverse Bay nearly across the lake. They are low and sandy, but afford shelter for light boats in their passage to Green bay. *Grosse isle*, is a "valuable alluvion," 5 miles by 2 in size, 2 miles above Malden, dividing the channel of Detroit river. *Bois Blanc* is off Malden, south of the ship channel, and within the limits of the United States.

* The above is principally from the pen of Capt. Dunham.

NORTH-WEST TERRITORY.

CHAP. I.

HISTORICAL GEOGRAPHY.

BOUNDARIES AND EXTENT, ORIGINAL AND PRESENT POPULATION, HISTORY, CANAL, FORT.

Boundaries and Extent.] Bounded E. by Michigan lake, and St. Mary's river; N. E. and N. by the N. line of the United States, through lake Superior, and extending thence to the lake of the Woods; and thence due W. to Red river. W. by Red river, (which rises near the head waters of the Mississippi, and runs north into lake Winnipoc), and the Mississippi; S. by Illinois—between lat. $42^{\circ} 30'$ and 49° N. lon. 84° and 98° W. Its greatest length from S. E. to N. W. is 700 miles. Its greatest breadth, from St. Mary's to the Mississippi, is 550 miles. Its average breadth is much less. The number of square miles, is estimated at 147,000, exclusive of the waters of lakes Michigan and Superior, half of each of which are in this territory.

Original and Present Population.] These, so far as we are informed, are the same.

When Carver visited this country in 1768, he found the Winnebagoes, a warlike nation, settled on Fox river, where they still inhabit; the Saukies on the upper part of the Ouisconsin river, and near the portage; and the Ottigawmies near its mouth, and above it along the Mississippi. The Chipeways, or, as McKenzie calls them, the Chepewyans, then possessed the country S. of lake Superior, that on the Chipeway river, and a great extent westward. Whether the same, or different, tribes now occupy this country we are unable to say. It is, however, possessed by Indians, and they still have a title to the great body of the land.

There is but one settlement of white people in any part of this extensive territory, and that is on Green Bay.

History.] Of the first settlement and progress of this country we have no account. It was included in the *N. W. Territory*, which, in 1789, embraced all that part of the United States, which lies N. of the Ohio, and E. of the Mississippi. It has been reduced to its present size, successively, as the states and territories in this district of our country, have been formed. As there is much unsettled land in other and more favorable parts of our country, this territory, will probably remain in the hands of its present owners for years to come.

Canal.] One of the *six* points of near approximation between the waters of the Mississippi and the lakes, where canals are practicable and contemplated, is in this territory. The Ouisconsin river,

which empties into the Mississippi, at Prairie du Chien, at the N. W. corner of Illinois, and the Fox river, which runs N. E. into Green bay, an arm of lake Michigan, at one point, lat. 43° N. lon. $89^{\circ} 30'$ W. pass very near each other. The portage, at this point is short, and a canal would be practicable. See article *Rivers*.

Forts.] At the mouth of Fox river in Green bay, the United States have a fort, in which 200 troops are stationed; an Indian factory and trading house, a settlement of about 60 houses, lat. 45° N. Another military post, for important purposes of scientific discoveries, as well as for protection and defence of our frontiers, and of the fur trade has recently been established, at Prairie du Chien, on the Mississippi, at the mouth of Ouisconsing river, lat. $42^{\circ} 35'$ N. The N. W. company have a post established in this territory, on the head waters of the Mississippi river.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE, SOIL, RIVERS, LAKES, BAYS, ZOOLOGY, MINERALOGY.

Climate.] The northern half of this territory has the climate of the Canadas; the other half, that of Michigan, and the northern parts of New-York and New-England.

Soil.] Of this we have no specific information, no traveller of intelligence, who has published his travels, having explored this country. It doubtless contains large bodies of valuable tillage land, and is capable of supporting as large a population of equal extent, as lands in the latitudes east of it.

Rivers.] The Ouisconsing, the most considerable eastern branch of the Mississippi above the Illinois, empties in lat. $42^{\circ} 35'$. The Mississippi is here only half a mile wide; but, a little above it is more than a mile.

The Ouisconsing flows with a smooth, gentle, current between high banks, to the carrying place, where it interlocks with Fox river, and is, the whole distance, easily navigable. From its source to the carrying place, where it is more than 100 yards wide, its course is from the E. of N. and thence to the Mississippi is a little S. of W.

Fox river rises S. W. of the carrying place, where it approaches within about 1 mile, some accounts say 3 miles, of the Ouisconsing. Its course thence is N. E. and N. about 130 miles, to the N. W. corner of Winnebago lake, in which distance it receives two considerable tributary streams from the north; its current thus far is gentle, and its depth considerable. Across this lake the distance is 12 miles, to its mouth on the N. E. end, and thence to the head of Green bay in lake Michigan, is 35 miles, the first 30 of which, the river is full of rocks and rapids, and the last five smooth and navigable. The width of the river from lake Winnebago, is from 50 to 100 yards; above that lake it gradually decreases, and is only 5 yards at the carrying place, between it and Ouisconsing.

This is the nearest point of communication between the navigable waters of the gulfs of St. Lawrence and Mexico. Nearly half the way across the carrying place is a morass, overgrown with a species of long grass; the rest is a plain, covered with oak and pine trees. A canal here could be opened at little expense, and in some future time may be of much importance to the country.

Iron river, so called by the Indians, is 20 yards wide at its mouth in lake Michigan, has a solid rock for its bottom, and is not passable even in a canoe. On it is a copper mine, 3 leagues from its mouth. Its course is from W. to E.

Black river falls into the Mississippi N. of the Ouisconsing.

The Chipeways enters the Mississippi, about 200 miles above the Ouisconsing, at the mouth of lake Pepin. It is about 80 yards wide at its mouth, but much wider a little above. It is formed by two branches; the eastern, and largest, heads in the height of land between the Mississippi and lake Superior, and pursuing a southerly direction, receives the western, called Coppermine river, 30 miles from their common estuary. It is navigable to the foot of the falls, 30 miles up the eastern branch.

The River St. Croix falls into the Mississippi 30 miles above lake Pepin, a little S. of the falls of St. Anthony. Its head waters are near the head of a river which runs N. into the W. end of lake Superior.

Red river is a part of the boundary between this Territory and Missouri. Its head waters are in Red lake, very near the head waters of the Mississippi. Its course is N. From the S. W. it receives Swan river, a considerable stream of Missouri territory. Farther N. near the line which divides Missouri from the British Territories, the Assinaboin, comes in from the W. These united streams, under the name of Red river, fall into the S. end of lake Winnepec, W. of the mouth of Winnepeg river.

Winnipeg river connects the lake of the Woods and lake Winnepec, forming a part of the northern boundary of the United States.

Dove, or Pigeon, river rises in the height of land between lakes Superior and Winnipeg. It issues from Peche lake, a small pond 3 miles across, which borders the height of land, and pursues an easterly course to lake Superior. Between Peche lake and lake Superior, a distance of 50 miles in the route pursued by the fur traders, lie Petite, Peche, Rose, Mountain, Elk, and Outard lakes. As far as we can learn, Dove river is the estuary of a part of these small lakes, and empties a little north of the grand portage.

The St. Louis, a considerable stream, is the most remote source of the St. Lawrence, and falls into lake Superior at its western extremity, which the French call Fond du Lac; and the English, West bay. Its mouth is in lat. 46 50 N.; and in lon. 92 10 W.

Lakes.] Lakes Michigan and Superior, Rainy lake, and the lake of the Woods, have already been described. They lie half within this territory.

White Bear lake, is the most northern source of the Mississippi, and lies S. W. of the western extremity of the lake of the Woods. It is about 60 miles in circumference, and its form is nearly round.*

* Carver.

Red lake is the source of Red lake river, which runs westward and joins Red river, a tributary of lake Winnepec, forming part of the western boundary of this territory. Red lake is about the size of White Bear lake, and of a similar form. It lies a little N. E. of it, and S. or S. W. of the lake of the Woods, and contains an island of considerable size.

Lake Pepin is merely an expansion of the Mississippi, 90 miles below the falls of St. Anthony. It is about 20 miles long from S. E. to N. W. and 6 broad. It is in many places very deep, and abounds with various kinds of fish.

Winnebago lake is 15 miles long from E. to W. and 6 wide. At the S. W. corner, it receives a considerable river, called Crocodile river. From this lake issues Winnebago river, which runs into Green bay, in Michigan lake, on which live the Winnebago Indians. Great numbers of small lakes are found dispersed in the country between the Mississippi and lake Superior.

We have already mentioned those between that lake, and Peché lake. A portage of only 679 paces separates this last from lake Hauteur de Terre, a source of Winnepec river; which, leaving the last mentioned lake, runs through lac de Pierres-a-fusil; Mara-boeuf lake; lake Saginaga, 14 miles long by 3 wide; lac des Cou-teaux, 12 miles by 2; lac Bois Blanc, 15 miles long; lake Croche, 18 miles long; lake la Croix, of equal length; Vermillion lake, 7 miles long; and lake Namaycon 16; to Rainy lake, and thence through the lake of the Woods, and lake Winnipeg, to Hudson bay.

Green, or Puan bay, at the N. W. part of lake Michigan, toward lake Superior, is about 100 miles long, from N. to S. by 10 to 30 broad. For 30 miles from its mouth in lake Michigan, it embosoms a chain of islands, nearly 30 miles long, which prove a shelter against the winds from the lake. By the Indians this is called Menomie bay.

Zoology.] In the rivers and lakes, are abundance of fish. On their surface, are ducks of various sorts, and geese. On their banks, beavers; and in their forests, buffaloes, deer, elk, turkeys, and wild game of many kinds.

Mineralogy.] On the banks of the Ouisconsin river are immense quantities of the purest lead ore. There are many mines of very pure copper found on the south shore of lake Superior. There is a copper mine, 9 miles from the mouth of Iron river. On Middle Island, 19 leagues N. W. of Iron river, are found great quantities of pure copper. Here is a hill 30 feet high, bordering the shore, from the foot of which pieces of copper from 7 to 25 pounds have been taken, indicating it to contain a rich copper mine. Not far from this island, another river, empties into the lake, which the Indians call "*Roaring river*, from a rumbling noise, like distant thunder, which is heard every two or three days during the warm season, occasioned, it is thought, by the vast quantities of copper, which attract the electric fluid to that place." The Indians, in consequence, approach this river with religious awe, as the residence of the Great Spirit. The banks of this river are high, near its mouth, where the earth appears to have been rent asunder by some great convulsion. The

Indians never eat the fish of this river, as they are of a poisonous nature, the water being strongly impregnated with copper. The taking of the fish from this river, the Indians conceive, will offend the Great Spirit.*

MISSOURI TERRITORY.

CHAP. I.

HISTORICAL GEOGRAPHY.

BOUNDARIES, EXTENT, DIVISIONS, CHIEF TOWNS, POPULATION, INDIANS, INDIAN CESSIONS, COMMERCE.

Boundaries.] THIS territory was established by act of congress, June 1812, and embraced the whole of Louisiana, except what was included in the state of Louisiana. Missouri territory, when established, was bounded S. W. and S. by New-Mexico and the state of Louisiana; E. by the Mississippi; N. by British America; W. by the Rocky mountains.

In March 1819, the southern boundary of this territory was fixed by act of congress, as follows, viz. "A line beginning on the Mississippi river, at lat. 36° N. running thence W. to the river St. Francis; thence up the same, north, to lat. $36^{\circ} 30'$, thence W. to the western territorial line."—All the Missouri territory S. of this line, by the above act of March, 1819, was formed into a new territory, by the name of the **ARKANSAW TERRITORY**.

The Missouri territory is now bounded S. by Arkansaw territory, E. by the Mississippi and Red rivers;† N. by British North-American dominions; W. by Rocky mountains. An act to erect this territory into a state, was before congress, in February, 1819; which will probably pass at the next session of that body.

Extent.] This territory extends from lon. $88^{\circ} 30'$, to 113° W. about 1300 miles in length; and from lat. 36° to 49° N. about 900 miles in breadth. It is estimated to contain about 900,000 square miles.

Divisions and Population.] By the census of 1810, it appears, that this territory was divided into 6 Districts, as follows:

<i>Districts.</i>	<i>Population.</i>	<i>Districts.</i>	<i>Population.</i>
St. Charles	3,505	Cape Girardeau	3,888
St. Louis	5,667	New Madrid	2,103
St. Genevieve	4,620	Arkansaw	874
Settlements of Hopewell and St. Francis			188

20,845

* Gov. HULL's M.S.

† See boundary of N. W. territory.

In 1818, a new division had been made as follows ;

<i>Counties.</i>	<i>Chief Towns.</i>	<i>Counties.</i>	<i>Chief Towns.</i>
Washington	Potosi	Howard	Franklin
St. Louis	Sr. Louis	Cape Girardeau	Jackson
St. Charles	St. Charles	Arkansaw	Arkansaw
St. Genevieve	St. Genevieve	Lawrence	Lawrence
New Madrid	Winchester	*Madison	Fredericktown

The population of these countries, in 1818, was estimated at 60,000. A small part of this population is now included in the new territory of Arkansaw.

Nearly all the settlements and civil divisions, made W. of the Mississippi, are E. of the 95th degree of W. longitude. On the W. bank of the Mississippi, there is a continued line of settlements, with short intervals of low bottoms, or barren hills, from the mouth of the Missouri to the confluence of the Ohio.

Chief towns.] ST. LOUIS is the capital of this territory, lat. 38° 40' N. lon. 89° 50' W. pleasantly situated on the W. bank of the Mississippi, opposite Cahokia, 14 miles, by land, below the mouth of the Missouri, and about twice that distance below the mouth of the Illinois. The country around it is level and rich for many miles. The body of the houses are on the margin of the river, extending more than two miles on the lower bank. On the second bank, which gradually rises 40 feet above the other, stands the rest of the town, commanding an extensive and delightful view of the lower part of the town, the river, and adjacent country. Here stands the fort for the defence of the place, and which, till lately, accommodated the court with a room, for their sessions, and with a prison for their criminals. A new stone jail has lately been built. It has two houses for religious worship, one for Roman Catholics, and one for Baptists; 2 banks, 2 printing offices, and a theatre. In 1810, the population was 1,600, now (1819) it exceeds 4000. Its vicinity to three great rivers, will probably make it an emporium of an extensive commerce. A number of steam boats and other vessels maintain a brisk and increasing commerce with New-Orleans, distant 1300 miles. In the Indian trade up the Missouri, and Mississippi, a capital of \$300,000 is employed, which furnishes peltries and furs in large quantities, and of great value. The dry goods for this market are brought from Philadelphia and Baltimore to Pittsburg, by land, thence by water. This place was settled as early as 1764.

ST. GENEVIEVE, is on the second bank of the Mississippi, one mile from the river, opposite Kaskaskias, 64 miles below St. Louis, lat. 37° 51' N. It was settled as early as 1774, and is at present the principal depot for the rich and extensive lead mines on the Maramec or Marcumeg river, and is the store house whence the mines derive their supplies. Its site is a handsome plain of 100 acres. In front of the town, 8 or 10 miles along the Mississippi, generally

* A new county.

about 3 miles wide, is a fine, level, rich bottom, capable of high cultivation. About 7000 acres of this land is enclosed and tilled by the citizens, as a *common field*. The surrounding country is rough, but yields good crops to the farmer. The town has about 400 houses and stores, and an academy. It was originally built on the margin of the river, and was more populous than at present.

ST. CHARLES, is a handsome French village, with many Americans intermingled, of upwards of 1000 inhabitants, on the N. bank of the Missouri, 21 miles from its mouth, 18 miles W. of St. Louis, over an excellent road, through a rich prairie country. The main street is on the first bank; the second on the top of the hill, which abruptly rises from the margin of the river, on which is a round wooden tower, built by the Spaniards for defence.

CARONDELET, is a romantic, and pleasant little French village, on the W. bank of the Mississippi, 6 miles below St. Louis, in the direction towards the mines, and has about 500 inhabitants.

HERCULANEUM is an American settlement, with a fine shot manufactory, near the Mississippi, 30 miles S. of St. Louis. The lead mines are 45 miles due W. of this place.

FRANKLIN, the capital of Howard county, formerly Boone's settlement, is on the Missouri river, 160 miles from St. Louis. It contained, in 1819, about 200 houses. It is in the midst of a very fine tract of country, and is destined probably, at no distant period, to be the capital of this rising state.

FREDERICKTOWN is the seat of justice for Madison county. Its site is elevated, on the bank of a pleasant rivulet, fed by permanent springs. The great roads leading from Jackson to Potosi, and from St. Louis to Arkansas, cross each other in this town.

NEW BOURBON, a village of about 70 buildings, is 2 miles S. of St. Genevieve. Its inhabitants are principally French.

CAPE GIRARDEAU, a village of French and Germans, 70 miles S. of St. Genevieve, and 20 N. of the mouth of the Ohio, stands on an eminence, surrounded by a valuable tract of country.

NEW MADRID is near the S. E. corner of this territory, on the W. bank of the Mississippi, 70* miles below the mouth of the Ohio, lat. 36 35 N. opposite the N. line of Tennessee. This town was laid out by Col. Morgan, about the year 1790, under the Spanish government, with high hopes, which however have not been realized. The country around is very rich, yielding cotton, indigo and corn, but the country back is said to be swampy and unhealthy. A creek enters the Mississippi just above the town, which affords a good harbor for boats, and there is a pleasant lake in its rear. The river is continually making encroachments on its banks in front of the town.

The government of the United States have recently fitted out an expedition under the command of Major Long, of the engineer corps, for the upper waters of the Missouri, and Mississippi. A military post is to be established 1800 miles above St. Louis, on

* Schultz says 75.

the Missouri; and another at the falls, of St. Anthony, on the Mississippi, about 1100 miles above St. Louis.

Population.] The population of this territory including Arkansaw in 1810, according to the census, was 20,845, exclusive of Indians. In 1818 it was supposed that it had increased to 60,000.

As this territory has been but very partially explored, the Indian population has never been ascertained with any accuracy. The whole number of Indians between the Mississippi and the Rocky mountains has been usually estimated at 100,000 souls. Other accounts state, that the number of tribes in the Missouri territory alone,* is upwards of 70, containing 250,000 souls.

Indians.] More than 40 tribes of Indians are enumerated within the boundaries of this territory. Very little is known of the greater part of them except their names.

The *Sioux*, the most numerous and warlike of all the tribes, inhabit the country between the Mississippi and the Missouri, and lying generally between lat. 42 and 47 N. They also claim lands on the east of the Mississippi, and others on the S. of the Missouri. Their best lands and most populous villages are on St. Peter's river. These Indians are the dread of all the surrounding tribes. The whole number of Sioux Indians is estimated at 21,675, of whom 3,835 are warriors.

South of the Missouri are the following tribes, *viz.* The Great and Little *Osage* tribes, who reside principally on the Osage and Arkansaw rivers; they are next to the Sioux in point of numbers. The *Osages* can assemble a force of 2500 warriors. They are remarkably tall, large, and ferocious—erect and well proportioned; their complexion is between an olive and a copper color; they are expert warriors, and are frequently engaged in war with the Sioux, and western nations. Their chief villages are on the bank of the Osage river.

The *Kanzas* reside on the river of the same name, about 240 miles from its mouth. They have a fine country, rich in game and vegetable productions. They hunt on the head branches of the Kanzas and Arkansaw, can muster 460 warriors, and are similar in form and manners to the *Osage* Indians.

The *Pawnees* reside between the Missouri and the river Platte. They worship, as their chief god, the planet Venus, which they denominate the Great Star, and to which they offer *human sacrifices*!† They can raise 2500 warriors. They have been recently at war with the Spaniards of Santa Fe.

The *Wetepahatoes* and *Kiawas* live on the branches of Platte river, and together amount to about 12,000 souls. The *Mandans* have been reduced by war with the Sioux, to about 1250 souls. Their towns are situated in the Great bend of the Missouri.

The *Castahanas* have about 1300 warriors, and roam in an open country, between the head waters of Yellow Stone and Platte riv-

* Including Arkansaw Territory.

† J. M. Peck, a Baptist Missionary.

ers, and raise great numbers of horses and mules. They are friendly to the whites.

The *Snake* Indians inhabit the Rocky mountains, from the head waters of the Missouri to the sources of the Arkansas. They are a harmless people, and greatly oppressed by their neighbors. This name is given to Indians on both sides of the Rocky mountains.

The above are the most numerous and important of the Indian tribes of this territory. There are numerous other smaller tribes containing about 1000 souls each, on an average, they are of too little consequence to be particularly mentioned.

Indian Cessions.] In the year 1817, the Indian title had been extinguished to about 70,000 square miles, a tract as large as the whole of New-England, included within the following boundaries. Beginning at the mouth of the Kansas, three hundred miles up the Missouri river, in lat. $39^{\circ} 5' N.$ and running north over a rich country, 100 miles, to the head of the little river Platte; then east, over naked sterile ridges, 150 miles, to the river des Moines, (river of the Monks) then down that river 16 miles to the Mississippi. South of the Missouri, the line begins at Prairie de Feu, 30 miles below the mouth of the Kansas, and runs south, 254 miles down that river to Arkansas; then down that river, supposed 250 miles, to the Mississippi.*

Commerce.] The exports from this territory consist principally of lead, peltry, and skins. The Indian trade of the Missouri and Mississippi river employs a capital of about \$300,000, and the returns of the furs and peltries are immensely valuable. There are several steam boats now constantly plying between New-Orleans and St. Louis, besides a great number of barges and keel boats.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE, FACE OF THE COUNTRY, SOIL, MOUNTAINS, RIVERS, ANIMALS, NATURAL CURIOSITIES.

Climate.] THE height of this western region, and the open plains of which it is composed, cause it to possess a pure elastic, healthy air. The atmosphere in a serene calm evening is so clear, that a slight smoke can be discerned at the distance of many miles. In the dry season, at a distance from the great rivers, water is every where exceedingly scarce. A person in traversing the country, will be frequently surprised at crossing the beds or channels of large rivers, without finding a drop of water.†

Face of the Country.] Taking this whole country together, it may be pronounced an extensive region of open plains and meadows, interspersed with barren hills, and having some resemblance to the

* Brown's Western Gazetteer.

† Breckenridge.

Steppes of Tartary, or the Saaras of Africa, but without the morasses and dull uniformity of the one, or the dreary sterility of the other. The tracts lying on the great rivers constitute the most valuable parts ; but these, in geographical extent, are very inconsiderable.

Soil.] Taking the distance from the Mississippi to the Rocky mountains to be about 900 miles ; of the first 200 the larger proportion is fit for settlements. There is a great deal of well timbered land, and the soil is generally good ; this quality, however, diminishes as we ascend north, where the soil becomes unproductive and almost barren, and as we advance westward the land becomes more bare of woods. For the next 300 miles the country can scarcely be said to admit of settlements ; woods are seldom found, except in the neighborhood of streams ; after the first 100 miles no timber is found on the upland, except pine or cedar. The rest of the country is made up of open plains of immense extent, checkered with waving ridges. The same description will suit the rest of the country to the Rocky mountains, except that it is more mountainous, and badly watered ; and a great proportion entirely barren.* In the two last divisions the bodies of land fit for settlements are at great distances from each other.†

The bottoms of the Mississippi afford suitable situations for settlements, from the mouth of the Missouri, to the falls of St. Anthony, except at certain bluffs, where the soil is too barren to invite settlers.

The alluvial bottoms are generally composed of a rich soil, yielding a pretty heavy growth of pecan, poplar, sugar-maple, honey, locust, ash, cotton-wood, black walnut and cucumber. The prairies in many places approach close to the river. Above the falls of St. Anthony the pine country commences.

The Boone's Lick country, now Howard county, embracing an extent of 30,000 square miles, lying on both sides of the Missouri, between the mouths of Osage and Kansas rivers, is represented as the richest body of land of the same extent in the territory. It is very similar to the good land of Kentucky, and as it has no bed of rock, as in Kentucky, it is perhaps superior.

The lands in the neighborhood of the Missouri yield wheat, maize, and every kind of grain, common and sweet potatoes ; and hemp, which seems to be an indigenous vegetable ; even cotton succeeds here, though not so well as further south. The peninsula between the Mississippi and Missouri, for about 40 miles above their junction, is a tract of first rate land.

Mountains.] The Rocky mountains on the western border of this territory have already been noticed.‡ They are without doubt a continuation of the Andes. Their course is nearly north and south ; in width and elevation, some of them are little inferior to the mountains of South-America. There are a number of peaks of immense

* There are extensive tracts of moving sands, similar to those of the African deserts. Mr. Makey was several days in passing over one between the river Platte and the Missouri, and near the mountains ; there was no sign of vegetation.

† Brackenridge.

‡ P. 124.

height, and covered with perennial snows. Their highest elevation is not further north than the 41° of N. lat. It is from this quarter that many of our greatest rivers take their rise, and flow in opposite directions; the Colorado of California, Rio del Norte, the Arkansaw, the Platte, and the Yellow Stone.

There is a long chain of hills, which generally separate the waters of the Missouri from those of the Arkansaw and Mississippi, and which are commonly called the Black mountains. The hills in the White river country, and those west of the Mississippi, towards the head of the St. Francis and the Maramec, so abundant in minerals, may be dependencies of the Black mountains.*

Rivers.] The Missouri and Mississippi have been already noticed.†

The following table exhibits the principal branches of the Missouri, the width and latitude of each, at its mouth, and the distance from the mouth of the Missouri.

<i>Rivers.</i>	<i>Width of rivers in yards.</i>	<i>Side of Missouri.</i>	<i>Distance.</i>	<i>Latitude.</i>
Gasconade river	157	S. W.	100	$38^{\circ} 45'$
Great Osage	397	S. W.	133	$38^{\circ} 31'$
Mine river	70	S. W.	200	
Grand river	190	N. E.	240	
Kansas river	233	S. W.	340	$39^{\circ} 5'$
River Platte	600	S. W.	600	$41^{\circ} 2'$
Big Sioux river	110	N. E.	853	$38^{\circ} 43'$
Jacque or James r.	90	N. E.	950	$42^{\circ} 53'$
Quicourre	150	S. W.	1000	
White river	300	S. W.	1130	
Chicenne river	400	S. W.	1310	$44^{\circ} 20'$
Yellow Stone	800	S. W.	1880	$47^{\circ} 30'$

The *Great Osage* river rises in the Black mountains, which separate its waters from those of the Arkansaw. It said to be navigable 600 miles; but it does not afford a good navigation, being full of shoals and ripples.

Mine river, heads between the great *Osage* and branches of the Kansas, and is the largest flowing into the Missouri between the Osage and Kansas. The main branch of the Mine river, called Salt Fork, is generally impregnated with salt, as thoroughly as the sea water, from June to November.

Kansas river, is large and navigable. It heads in the open plain between the Platte and the Arkansaw, and is navigable 900 miles. The Kansas nation of Indians claim the lands bordering on this river and its extensive branches. The country is rich, but destitute of timber, except on the water courses; grapes are found in abundance, and the country back from the streams is almost one continued prairie.

Platte river, rises in the same mountains with the Missouri, and is about 2000 miles in length, but affords little navigation, owing

* Brackenridge.

† Page 110.

to the great number of shoals and quicksands, which its channel contains. Various Indian nations reside upon it, the Missouris, Ottos, Panis and others. This river takes its rise with the Rio del Norte, and with the Colorado of California, and flows through an open country, like the Missouri. The Missouri, above the mouth of Platte, is called the Upper Missouri.

The *Great Sioux* river rises in the plains between the Missouri and the waters of lake Winnipeg. It is 5 or 600 miles in length. The river *Jacque* is the principal rendezvous of the traders with the Yankton Sioux. It is a large handsome stream, navigable several hundred miles, with more wood on its borders, than is generally found in this part of the country. *White* river is navigable 100 miles.

The *Yellow Stone* rises in the Rocky mountains. It is a rapid river, and equal in size with the Missouri. Its whole course is about 1100 miles. Capt. Clark on his return from the Pacific ocean descended this river. He found it deep and navigable, from the place where he reached the river to its mouth, a distance of 850 miles. In August, 1818, a battalion of the rifle regiment, commanded by Col. Talbot Chambers, consisting of 350 men, ascended the Missouri with a view to establish a fort at the mouth of the Yellow Stone. They carried with them seeds and grain, which are expected to thrive in that climate. The appearance of the country, and the climate on the Yellow Stone are very favorably described by the traders.

The object of this post, it is stated, is to control the communication of the Indians in the boundaries of the United States, with the North West and Hudson's bay companies. Two more posts it is supposed will soon be established, one at the Great Bend of the Missouri, and the other at the Mandan villages.

The principal rivers entering the west bank of the Mississippi above the mouth of the Missouri are,—1. *Salt* river, which empties 60 miles above the mouth of the Illinois. About one day's sail up this river are salt springs, at which salt has been made for several years past. 2. *Des Moines* river is seven or eight hundred miles long. It heads in the country between the Sioux river, and the St. Peter's. Its course is S. E. and it empties into the Mississippi in lat. 40° 5' N. 3. *St. Peter's* river, rises near the sources of the Great Sioux, a branch of the Missouri, and after a S. E. course of 4 or 500 miles, joins the Mississippi about 12 miles below St. Anthony's Falls. 4. The river *De Corbeau* empties into the Mississippi, in lat. 45° 48' N. about 375 miles above the falls of St. Anthony.

The *Maramec* river empties into the Mississippi, 40 miles below the mouth of the Missouri. It is navigable 250 miles, to its very source. Lead is found in great abundance near this river.

Animals.] Buffaloes abound in all parts of this territory. Their hides and tallow are important articles of commerce. They go in immense herds. Lieut. Pike, who travelled on the Arkansaw river towards its sources, saw, as he judged, 3000 in one drove. The face of the earth appeared to be covered with them. The borders of the Arkansaw and Missouri rivers are the paradise of hunters. Of all countries visited by man this produces game in the greatest abundance.

The Indians have several methods of taking the buffalo. They sometimes drive them down precipices, where whole droves are dashed to pieces. They frequently attack them on horseback, with bows and arrows. This is a dangerous sport, as the assailants are sometimes pursued and vanquished by these animals, rendered furious by the anguish of numerous wounds. The usual mode with the Sioux is to make a fence or inclosure of stakes. A small party is then sent out to decoy the animals into this inclosure; they are dressed in ox-skins, with the hair and horns, and by their gestures so completely resemble the buffalo, that they readily lure them to destruction; the decoyers bellow and paw the earth, gradually retreating to the inclosure, which they enter, and are followed by the herd or drove, until the animals find themselves inclosed in a pound, which their utmost force cannot break down. At this moment, the Indians, women, children and dogs, rush from their hiding places, and fall upon the rear of their unsuspecting prey, and commence the slaughter, sometimes killing as many as 100 at a time.

The great brown bear of the Upper Missouri is a terrible animal; and the extreme difficulty with which it is killed, renders it a dangerous and formidable enemy to man. Wild horses are found in droves on the prairies, between the Arkansaw and Red river. Deer, elk, bears, wolves, panthers and antelopes, are numerous. The white bear is found on the head branches of the Missouri. Cabree and moose are numerous. The Rocky mountain sheep has horns shaped like those of common sheep, but enormous in size, measuring three feet in length. The body is larger than that of a deer. Its legs resemble those of the domestic sheep. It possesses uncommon agility, and climbs cliffs and steep mountains with such ease that no other animal can follow it. Its flesh is considered equal to that of a deer. Beaver abound from the Missouri throughout the Sioux country, and in most parts of the territory.

The prairie dogs reside on the prairies south of the Missouri, in regular towns and villages. The sites of these towns are generally on the brow of a hill, near some creek or pond. Their residence is in burrows, which descend in a spiral form. The villages sometimes extend over two or three miles square, in which there must be hosts of them, as there is generally a burrow every ten steps. As you approach their towns, you are saluted on all sides by the cry of *wishtonwish*, uttered in a shrill and piercing manner.* These animals are a little larger than a gray squirrel.

Mineralogy.] Lead is the most important mineral hitherto discovered in this territory. It is found in inexhaustible abundance near the river Maramec, from 30 to 50 miles west of St. Genevieve. These mines are numerous, and extend over a district of country 50 miles long and 25 broad. The most noted are Mine la Burton, Mine la Motte, New Diggings, American Mine, &c. The ore can be found in almost every direction. Most of the mineral is so exceedingly rich, that 100 pounds of ore will produce from 80 to 90 of pure lead. About 1000 tons have been smelted at the several furnaces annually. The mining operations have hitherto been very rudely performed.

* Pike's Journal.

On the S. bank of the Missouri, 15 miles from its mouth, is a coal hill, called by the French, la Charboniere. This hill is one solid mass of stone coal, and is supposed to contain an inexhaustible supply. Coal is also found in abundance in other parts of the territory.

Mines of rock salt are found towards the head branches of the Arkansaw. The Indians employ levers to break it up and loosen it; some is white, and some of a reddish hue. The Grand Saline, according to Dr. Sibley, is 280 miles S. W. of fort Osage, between two forks of a small branch of the Arkansaw. It is a plain, 30 miles in circumference, covered in hot weather, from 2 to 6 inches deep, with a crust of beautiful clean white salt. It bears a striking resemblance to a field of brilliant snow after a rain, with a light crust on its top. Salines abound in other parts of the territory, particularly, south of the Missouri.

The country, on both sides of the Missouri, between the river Piatte and fort Mandan, contains small lakes, many of which are said to be impregnated with saline substances, of the nature of glauber salts. Saltpetre is found very abundantly in caverns near the Missouri.

Iron, tin, zinc, and copper are found in abundance. Large quantities of Spanish brown and chalk are met with about 10 miles from the Mississippi, near Jackson, 12 miles from cape Girardeau.

Natural Curiosities.] The falls of the Missouri are in lat. 47 3, and 2575 miles from the mouth of the river. In the distance of 18 miles the water descends 362 feet. The first great pitch is 98 feet, the second 19, the third 48, the fourth 26. They embrace many sublime and beautiful prospects.

On the Missouri and some of its tributary streams are banks of clay burnt almost to the consistence of brick; of this kind there is, above the Poncas village, what is called the tower, a steep hill 150 feet high, and 4 or 500 in circumference, so hard as not to be affected by the rains. Large masses of pumice are seen near these places. These appearances were formerly attributed to the existence of volcanoes on the Missouri, but they are now generally supposed to be the effects of coal banks continuing a long time on fire.*

It is well known that immense quantities of earth are continually carried down the Arkansaw, the Red river, and especially the Missouri, to form the great alluvions of the Mississippi. The marks of this loss are very evident in the neighborhood of nearly all the rivers, which discharge themselves into the Missouri above the Platte. Some of the appearances may rank among the greatest natural curiosities in the world. The traveller, on entering a plain, is deceived at the first glance by what appears to be the ruins of some great city; rows of houses for several miles in length, and regular streets. These appearances are caused by the washing

* Brackeuridge.

away of the hills ; the ruins being composed of the most durable substances which remain.

Near these spots are usually found glauber salts, (sulphate of soda) and common salt, oozing with water out of the ground, and chrystallized on the surface. The most remarkable fact is the appearance in these places of the remains of trees, in a state of petrification, and some of enormous size ; some are stumps of four or five feet in height, perfectly turned to stone*.

In the fall of 1818, some ancient graves were discovered on the Maramec river, 15 or 20 miles from St. Louis, which seem to prove that a pigmy race formerly inhabited this country. These graves never exceed four feet in length, and rarely three feet. One of the skeletons, which has been preserved, containing a complete set of the second teeth, measures only 23 inches.

ARKANSAW TERRITORY.

BOUNDARIES AND EXTENT, DIVISIONS, GOVERNMENT, SETTLEMENTS, POPULATION, SOIL, FACE OF THE COUNTRY, &C. RIVERS, ANIMALS, MINERAL SPRINGS.

Boundaries and Extent.] This territory is bounded N. by the Missouri Territory ; E. by the states of Tennessee and Mississippi, from which it is separated by the river Mississippi. S. by Louisiana, and Red river, which divides it from the Spanish possessions ; and W. by the 100th degree of W. longitude, dividing it from the Spanish possessions. In the act of Congress establishing this territory, it is defined as follows "all that part of the territory of Missouri which lies south of a line, beginning on the Mississippi river, at 36° N. lat. running thence W. to the river St. Francis ; thence up the same to 36 30 N. lat. and thence W. to the western territorial boundary line." It lies between lat. 33 and 36 30 N. and between lon. 89 20 and 100 W. It is about 240 miles long from N. to S. and between 5 and 600 from E. to W. ; containing about 100,000 square miles.

Divisions.] This territory, until the present year, (1819) was a part of the Missouri territory. It has not yet been divided into counties.

Government.] The executive power is vested in a governor, who holds his office during 3 years, unless sooner removed by the president of the United States. He is ex officio superintendant of Indian affairs. The secretary holds his office for 4 years. The legislative power, until the organization of the general assembly,

* Brackenridge.

is vested in the governor and the judges of the superior court. The judicial power is vested in a superior court, and in such inferior courts, as the legislative department shall from time to time establish. The governor, secretary, and judges of the superior court are appointed by the president of the United States. The seat of government, until otherwise directed by the legislative department, is fixed at the post of Arkansaw, on the Arkansaw river.

Settlements.] The post, or town of *Arkansaw*, is on the river Arkansaw, about 65 miles from its mouth, and 714 miles from New-Orleans by water. It is one of the most ancient settlements W. of the Mississippi, having been established by the French, before the beginning of the last century. Its advance has been slow, like all other places, where the inhabitants depend upon hunting, and trade with savages for their subsistence. The inhabitants are mostly French, many of them of mixed blood. The population must be small; that of all the settlements on the Arkansaw river, amounting, in 1810, only to 874 souls.

In 1805, a settlement commenced near the *Hot Springs*, on the head waters of the Ouachitta, or Wachitta river. Emigration to this remote spot has continued annually ever since; attracted more by the springs, than any other considerations.

Hopefield is a settlement on the Mississippi, opposite Chickasaw bluff, in lat. 35 N. The town of *Little Prairie*, 30 miles below New Madrid, on the Mississippi, in about lat. 36 N. suffered by the earthquake of 1812; previous to that time, there were perhaps 200 souls in the village. The settlements on St. Francis river are as yet very inconsiderable.

Population.] The whole civilized population contained in this territory, according to the census of 1810, was 1,062, viz.

Settlements of Hopefield and St. Francis	188
Settlements on the Arkansaw	874
	<hr/>
Total	1,062

Of this number 136 were slaves.

In 1817, it was estimated, that the population had increased to 5000. The number of Indians within the boundary of this territory is not known. Parts of the Osage and Pawnee tribes of Indians reside on the Arkansaw river. These tribes have already been noticed under Missouri territory. A part of the Cherokee tribe have lately removed and settled on this river, among whom the American Board of Commissioners for Foreign Missions have established a mission.

Soil, Face of the Country, &c.] The land upon the Arkansaw is in great part alluvial, and where not subject to overflow, excellent. It may be remarked as singular, that, to the extent of upwards of 300 miles from the mouth of the Arkansaw, so elevated is its bed above the adjacent country, its valley is confined merely to the stream of the river; the waters of the Ouachitta on one side,

and White river on the other, rising almost from the very margin of the Arkansaw.

The country on White river and its branches, covering an extent of many thousand square miles, is represented as one of the finest for settlements in western America. There are some prairies, but they are not very extensive. A very great similarity exists between the White river lands, and those of Kentucky, Indiana and West Tennessee. These lands are well adapted to the culture of cotton, though that plant is more liable to be destroyed here by frost, than in the states of Louisiana and Mississippi. With very few exceptions, the White river lands are public property. A considerable number of families are settled on the various branches of this stream, but mostly on public land. The agricultural and commercial advantages of the country will soon draw emigrants thither in great numbers.

The country on St. Francis is less fertile than that on White river. The country between these rivers is low, overflowed land, for a distance of more than 100 miles above their mouths. The same remark is applicable to the lands between the St. Francis and Mississippi. Upon the margin of the Mississippi, in this territory, the soil is similar to the rest of the land, which borders this stream from the mouth of the Ohio, to within 40 miles of the Gulf of Mexico.

The lands on the Ouachitta, especially in the neighborhood of the Hot springs, are high, poor, broken, and stony. This is the state of the Ouachitta lands generally, except near its mouth, in Louisiana, where for a short distance on each side, the lands are low, level and fertile, but for the most part subject to be overflowed. The timber on the high lands consists of pine, black-jack, and mountain oak. Silix or flint, with its various combinations, often in the form of granite, is the stone most commonly met with. Schistus, or slate, likewise exists in considerable quantities. Volcanic productions are common. The face of the country bears strong marks of fire.

Rivers.] Arkansaw river, after the Missouri, is the longest, and in some seasons the largest, branch of the Mississippi. It rises near the 41st degree of N. lat. and 110th of W. lon. among the same mountains, which give rise to the Platte and Yellow Stone branches of the Missouri; to the Colorado of California, and to the Rio del Norte. Its general course is S. E. and it empties into the Mississippi in lat. 34 N. and lon. 91 W. having traversed 7° of lat. and 19 of lon. upwards of 1100 miles in a direct course, or nearly 2000 following the windings of the stream. The Arkansaw greatly exceeds in length either the Ohio or the Mississippi proper. That part of the river, which runs within the Arkansaw territory, is skirted, in great part, by extensive prairies; and has much alluvial land. The navigation of the river is impeded by a considerable number of rapids.

White river empties into the Mississippi about 30 miles above the Arkansaw. It is a noble stream, and with its numerous tribu-

taries waters the extensive country between the Arkansaw and the St. Francis. It is interrupted by no shoals or rapids, and is navigable in its numerous windings, by computation, 11 or 1200 miles. Its waters are pure and limpid, and its current never becomes low, even in the dryest season. The lands bordering upon this river and its tributaries, for a great extent, are spoken of as remarkably fine, and well adapted for settlements.

St. Francis river rises about 100 miles N. W. of the mouth of the Ohio, and empties into the Mississippi about 100 miles above the mouth of the Arkansaw. Its general course is S. The country on the St. Francis is not so wide, nor so fertile, as that watered by White river. It is navigable to a point 60 miles W of St. Genevieve. The banks of this river and of White river are annually overflowed for a distance of 100 miles above their mouths.

The Ouachitta or Wachitta river, which empties into the Red river in Louisiana, rises in this territory. The celebrated Hot Springs are on the head waters of this river.

Animals.] Wild horses are found in droves on the prairies, between the Arkansaw and Red river; they are very fleet and are taken with difficulty. They are hunted by expert riders, on swift domesticated horses; the usual method is to throw a noose over their necks, which is done with great dexterity by those accustomed to the business. Buffaloes, deer, elk, bears, wolves, panthers and antelopes are numerous. Wolves and panthers follow the buffalo herds, and feast on the calves.

Mineral Springs.] The *Hot Springs* are 100 miles below the forks of the Ouachitta or Wachitta river, on a creek that falls into the river, and are about 10 miles distant from it. The temperature of these springs is influenced by the season. In the dryest seasons, the water is much diminished in quantity, and the heat is at the boiling point, so that persons cannot expose themselves to the vapor, which is the usual mode adopted by those who visit them.

These springs have been for some time, much celebrated by people settled in their neighborhood, on the Mississippi and its branches, for their efficacy in curing, or relieving, chronic pains, paralytic affections, and inability to motion generally. The Indians have, time immemorial, resorted to them, on account of their medicinal virtues. The ground around them is called by the aborigines, *the land of peace*. Hostile tribes, while here, remain in harmony with each other. Many of the white hunters, who have contracted disease from exposure to the vicissitudes of climate and season, have been restored by the use of these springs, to complete health and activity.

The water of the hot springs is soft and limpid, without smell. The taste is agreeable. It is used in the preparation of tea and coffee, and for every other purpose in preference to the water of the cold springs in the vicinity. The water has been analysed

and found to be less impregnated with mineral substances than common spring water.*

The Hot Springs are 300 miles from Natchez, and 458 from New-Orleans, by land.

LOUISIANA.

CHAP. I.

HISTORICAL GEOGRAPHY.

BOUNDARIES AND EXTENT, DIVISIONS, NAME, HISTORY, RELIGION, EDUCATION, CHARACTER, GOVERNMENT, MILITIA, POPULATION, CHIEF TOWNS, INLAND NAVIGATION, LEVEES, COMMERCE AND MANUFACTURES.

Boundaries and Extent.] LOUISIANA is bounded N. by Arkansas Territory. E. by the state of Mississippi. S. by the Gulf of Mexico, and W. by the Spanish Dominions. The boundary line runs as follows: Beginning in the Mississippi river, at the point where the river is intersected by the 33d degree of N. lat.; thence down the middle of the Mississippi to the 31st degree of N. lat.; thence along that parallel to the west bank of Pearl river; thence down that stream to its mouth; thence along the Gulf of Mexico, including all islands within six leagues of the shore, to the mouth of the Sabine river; thence up that stream to the parallel of 32° N.; thence by a line due north to the parallel of 33°; thence east, along that parallel to the place of beginning. It lies between lat. 29° and 33° N. and between lon. 89° and 94° 10' W. Its greatest length from N. to S. is 270 miles; and its greatest breadth from E. to W. 300 miles; its breadth on the northern border is 174 miles. It is estimated to contain 48,220 square miles.

Divisions.] The state appears to be divisible into three great natural sections viz. The northern, embracing, in general, the country north of the parallel of 31°; the southeastern, embracing all the country below that parallel, and east of the Atchafalaya river; and the southwestern section, including the remainder of the state, lying west of that river. The comparative extent and population of these divisions, will be seen in the following table. The civil division is into parishes.

* New-York Medical Repository.

LOUISIANA.

659

Parishes.	Square miles.	Population in 1810.	Chief Towns.
Natchitoches	10,600	2,870	Natchitoches*
Ouachitta	4,000	1,077	
Rapides	2,300	2,300	Alexandria
Ocatahoola	2,000	1,164	
Concordia	2,100	2,875	
Avoyelles	700	1,109	
NORTHERN SECTION	21,700	11,395	
Plaquemines	1,500	1,549	
Orleans	1,300	24,552	New-Orleans
St. Bernard	400	1,020	
St. Charles	300	3,291	
St. John Baptiste	150	2,990	
St. James	170	3,955	
Ascension	350	2,219	Donaldsonville
Assumption	505	2,472	
Interior of La Fourche	2,500	1,995	
Iberville	350	2,679	
West Baton Rouge	850	1,463	
Point Coupee	600	4,539	
New-Feliciana	} †4,850	10,000	St. Francisville
East Baton Rouge			Baton Rouge
St. Helena			Galveston
St. Tammany			Madisonville
S.EASTERN SECTION	13,820	62,724	
St. Mary's and St.	} 5,100	7,369	New-Iberia
Martins (Attacapas)			
St. Landre (Opelousas)	7,600	5,048	
S.WESTERN SECTION	12,700	12,417	
Total in the State	48,220	86,536	

Name.] The name of *Louisiana* was given to this country in honor of Louis XIV.

History.] The name *Louisiana* was originally applied to the whole country west of the Mississippi, included within the limits of the present state of Louisiana, and of the Arkansaw and Missouri territories. Its boundaries have been a subject of much dispute.

This country was first discovered by Ferdinand de Soto, in 1541. The first French colony was planted by Mons. Iberville, of Canada, in 1699.

In 1718 and 1719, while the exclusive trade of the country was in the hands of a company, a numerous colony of laborers, collected from France, Germany, and Switzerland, and allured by the most flattering promises and expectations, were conveyed to Louisiana,

* Pronounced by the inhabitants, *Nakitosh*.

† These four parishes are that part of West Florida, which was incorporated into the state of Louisiana.

and settled in a district called *Biloxi*, on the island of Orleans ; the miserable fate of this colony, who perished by hundreds, ruined the reputation of Louisiana ; and this enchanting country was now execrated, and its very name for a while became a reproach. It became the receptacle of the lowest and most profligate persons in the kingdom. In this state the colony languished, till 1731, when the company relinquished their concerns into the hands of government.

In 1762, France, by a secret treaty, ceded Louisiana to Spain.

By the treaty of St. Ildefonso, of Oct. 1, 1800, confirmed by that of Madrid, on the 21st of March 1800, Spain ceded the country back to France.

In 1803, the United States purchased Louisiana from France for about the sum of \$15,000,000.

Soon after the purchase the present state of Louisiana was separated from the rest of the territory, under the name of the *Territory of Orleans*.

In 1811, the territory of Orleans was made a state, and admitted into the union, under the name of the state of LOUISIANA.

In 1812, possession was taken of West Florida, by the United States, and the part west of Pearl river was incorporated with the state of Louisiana.

In December, 1814, the British made an attack on New-Orleans, but were repulsed by the Americans under General Jackson, with the loss of about 3,000 men, killed, wounded and prisoners. The loss of the American army was stated at only 7 men killed, and 6 wounded.

Religion.] The majority of the population of the state are Roman Catholics. The clergy of this order, however, are not numerous. In 1812, there were perhaps 15 ; four or five of whom resided in New-Orleans * The bishop resides, at present, at St. Louis, in the Missouri territory. At the period above-mentioned, there was not one Protestant church in the state. Since that time, however, Protestant missionaries of several denominations have visited the country, and established churches and societies in various places in the state. An elegant Episcopal church has recently been erected in New-Orleans ; and a Presbyterian church will soon be completed, which is said to be the most beautiful edifice in that city.

No regard is paid to the sabbath by the great mass of the people in this state. Dancing, gambling, parties of pleasure, and theatrical amusements are the common business of the day, in the city of New-Orleans, after mass in the morning. A change for the better, in regard to the low state of religion and morals, is confidently expected, and indeed has already successfully commenced. Men of high standing and influence, not a few, are engaged, with becoming zeal, in this business of reform.

Education.] Education has been deplorably neglected. Till very recently, they were almost without schools. Of the French inhabitants not one in ten can read. The government is now turning its attention to the establishment of schools, academies, and higher

* Schermerhorn and Mills.

seminaries of learning, in different parts of the country. A Catholic college in New-Orleans, has been established, which is said to be pretty well endowed.

We mention under this head, what was omitted in its proper place, and because it has a direct and important influence on this state, that in the winter of 1817 and 1818, the legislature of Mississippi granted a charter for a college, and a lottery for its support, to be established at the bay of St. Louis, 50 miles, by steam boat navigation, N. E. of New-Orleans; a place remarkable for the health and longevity of its inhabitants. In expectation of aid from congress, the buildings were commenced as early as Sept. 1818, and prospects of success in regard to this young establishment are very promising. This place being the summer retreat for the inhabitants of New-Orleans and Mobile; and a central position for the three great states on the gulf of Mexico, Louisiana, Mississippi and Alabama, seem to point it out as the proper position for the great literary institution of the country, between the river Sabine and Florida, destined at no distant period, to be among the most populous parts of the United States.

Character.] The population of the state is principally made up of French, Spaniards, Americans, Canadians, Germans, Africans, and their descendants. They have not been long together, and therefore cannot have amalgamated sufficiently, to form a homogeneous character.*

In journeying from New-Orleans to the mouth of the Sabine river, we meet with men in every stage of civilization. In New-Orleans, and other places on the banks of the Mississippi, the sugar and cotton planters live in splendid edifices, and enjoy all the luxury that wealth can impart. In Attacapas and Opelousas, the glare of expensive luxury vanishes, and is followed by substantial independence. Often the loom occupies one part of the common sitting room, or parlour, of families that are really wealthy. The farm houses are generally rough, but solid buildings. In the western parts of Opelousas are found herdsmen and hunters. Some of the farmers in this part of the country count their cattle by the thousand. The cabins are rudely and hastily constructed, and the whole scene recalls to the imagination the primæval state of society. Hospitality and bravery are mentioned as common characteristics of the people in this part of the state.

Government.] The legislature is composed of a senate of 17 members, and a house of representatives of 34 members. The government is as yet in equilibrio, between the French and American party. In 1818, the French had the majority in the house of representatives, and the Americans in the senate. The governor,

* A letter to the author, from a gentleman of intelligence and high respectability, resident in New-Orleans, under date of September, 1818, states, that "the character of its citizens is undergoing a gradual change. The formation of a Presbyterian church, and the rapid introduction of emigrants from the north, are causes effecting a rapid revolution in modes of thinking, and in morals. I have no doubt that in three years time the character of the city, in most respects, will be changed. It is of immense importance it should be so; for I assure you, Sir, that even calculation, sanguine as it has been, has not kept pace with its growth. In ten years from this time, I have no doubt it will contain at least 100,000 inhabitants."

treasurer, and secretary of state, were French: In the superior court, two of the judges were French, and one American. Of the district judges six were Americans, and one only French.

Militia.] The number of militia in 1817, amounted to 9,233.

Population.] The number of inhabitants in the whole of ancient Louisiana (including what is now the Arkansaw and Missouri territories) was estimated, in 1757, at 10,000. An accurate census was taken in 1766, and the number of souls was found to be 11,496, of whom 5,940 were slaves.

The following is the result of the census of 1810:—

Territory of Orleans	Whites	34,311	}	76,556
	Free blacks	7,585		
	Slaves	34,660		

To this number may be added 10,000, as the population of that part of West Florida, which was annexed to this state in 1812, making the whole number of inhabitants in the present state of Louisiana, at the date of the last census, 86,556. The population has greatly increased since 1810, and, at present probably exceeds 120,000.

This population is principally settled upon the banks of the Mississippi from Point Coupee, to some distance below New-Orleans, on both sides of the river. Through this whole distance, of more than 100 miles, the banks present the appearance of almost a continued village. The inhabitants of the upper part of these settlements are Canadians; of the middle, Germans; and in the lower part are French and Spanish, from Europe.

There is also a compact line of settlements extending along the banks of the Teche, the entire length of Attacapas district, a distance, following the windings of the stream, of 140 miles.

Chief Towns.] NEW-ORLEANS, the capital of the state, is on the left bank of the Mississippi, 105 miles from its mouth, by the course of the river, and about 90 in a direct line. The city is regularly laid out; the streets are generally 40 feet wide, and cross each other at right angles. The houses are principally of brick, on the streets near the river, but on the back part of the town are mostly of wood. The buildings have no cellars, except the space formed between the ground and the lower floors, which are raised five or six feet from the earth. The tornadoes, to which the country is subject, will not admit of the buildings being carried up many stories, as in other cities. Most of the houses in the suburbs have beautiful gardens, ornamented with orange groves. The city contains, among other public establishments, an arsenal, a custom house, a hospital, a catholic college, a female orphan asylum, two theatres; 4 churches, viz. 2 Catholics, 1 Episcopal, and 1 Presbyterian; 5 banks; and a nunnery, containing 30 or 40 nuns. The nuns have a large boarding house and are very rich. The French language, 15 years ago, was almost universal, but at present the English predominates. There are 5 newspapers published in the city, 3 of which are printed in English, the other two, both in French and English.

New-Orleans is admirably situated for trade, near the mouth of a noble river, whose branches extend for thousands of miles in different directions, and open communications with the various parts of

the most extensive and fertile valley on the face of the earth. New-Orleans has already become one of the greatest emporiums of commerce in America. The number of arrivals and clearances at this port, in the year ending Oct. 1st, 1815, was 623; 1816, 699; and 1817, 1,030. The amount of exports from the port of New-Orleans, during the year ending Oct. 1st, 1817, was \$13,501,036. In the year ending Oct. 1st, 1817, 1,500 flat bottomed boats, and 500 barges came down the Mississippi to this place, loaded with the produce of the upper country. There are more than 20 steam boats now navigating the rivers Mississippi and Ohio, and the coast of the gulf of Mexico, and several more are building. The successful introduction of steam boat navigation on the Mississippi, will soon make New-Orleans the grand emporium of the commerce of the western country.

The population of the city in 1802, was estimated at 10 or 11,000. According to the census of 1810, it was 17,242, of whom 5,961 were slaves. In 1818, it was estimated at 36,000, and was increasing with great rapidity. Lat. 29° 57' N. long. 90° 10' W. It is 1260 miles S. W. from Washington.

MADISONVILLE, in the district of St. Tammany, on the north side of lake Ponchartrain, and 27 miles N. of New-Orleans, is handsomely situated, on the right bank of the Chefuncti, two miles from its mouth. It has not yet attained much importance in point of wealth or population, but will probably soon become a considerable commercial city. It is favorably situated for the coast and West India trade. The government of the United States have fixed upon a spot near this place, for the site of a navy yard.

NATCHITOCHEZ, the largest town in Louisiana west of the Mississippi, stands on the right, or west bank of Red river, about 200 miles above its junction with the Mississippi, and about the same distance in a right line N. W. from New-Orleans. This town, or rather post, was established in 1717. Before the revolution in Texas, in 1811, an extensive inland trade was carried on between Louisiana and the Spanish provinces, of which this town was the centre. This traffic will be at some future day revived. A few troops are stationed here, which, with the Indian trade, still gives a lively appearance to the village.

ALEXANDRIA in the parish of Rapides, stands on the right bank of Red river, 120 miles from its mouth, and 80 miles below Natchitoches. It is about 350 miles N. W. of New-Orleans, and 120 west of Natchez. It contained, in 1817, about 250 inhabitants; 8 stores, 5 or 6 lawyers, and as many physicians, and was rapidly increasing. There is an academy in the neighborhood towards the support of which the state contributes 500 dollars per annum. The parish of Rapides, in which this village is situated, is settled almost exclusively by Americans.

ST. MARTINSVILLE, the seat of justice for the parish of St. Martin's, stands on the west bank of Teche river, 9 miles by land above New-Iberia. It is well situated for commercial purposes, in the centre of a well cultivated and productive country. *New-Iberia* is beautifully situated on the west bank of the Teche, at the head of

schooner navigation, in one of the most fertile and best cultivated parts of Attacapas.

Donaldsonville, in the parish of Ascension, is on the west bank of the Mississippi, at the efflux of the Lafourche.

St. Francisville, in New Feliciana parish, is on the east bank of the Mississippi, about 30 miles above Baton Rouge. *Baton Rouge* is a flourishing settlement of 300 inhabitants, on the E. bank of the Mississippi, 140 miles above New-Orleans, in the parish of East Baton Rouge. *Galveston* is on the south side of Amite river, near its junction with the Iberville.

Inland Navigation.] There are six outlets to the Mississippi, the deepest of which has but 12 feet water on the bar. Steam boats, of 3 and 400 tons, are employed in the commerce between New-Orleans and the interior country. Boats of 40 tons ascend to St. Anthony's Falls on the Mississippi, but ships seldom ascend above Natchez.

The inside passage from New-Orleans to Mobile and Blakely, and of course to all the country upon the waters of Mobile, Alabama, and Tombigbee rivers is perfectly safe and commodious for vessels of six feet draught. The passage from lake Pontchartrain to lake Borgne is through the *Rigolets*, which are properly the mouths of Pearl river. This pass, either in a commercial, naval or military view, is of great consequence. It is in fact, after the Mississippi, the most important inlet of Louisiana. The distance from New-Orleans to Mobile through this passage is 164 miles.

Levees.] These are embankments on the margin of the Mississippi, erected to prevent the water from overflowing the plantations during the periodical floods. The principal levee commences at the head of the island of New-Orleans, and extends to Fort Plaquemines, a distance of 130 miles. It is in some places lined with two rows of orange trees.

The levee is commonly constructed in the following manner, and is indeed but a trifling work, considering the importance of its object. At a distance seldom exceeding 30 or 40 yards from the natural bank, a mound of earth is raised about 5 feet high, and 12 at the base, with sufficient width at the top for a foot path. The size varies considerably; in some places, particularly on the points where the land is higher, and against which the current of the river strikes with less violence, the levees are very trifling; but in bends, where the current acts with greater force, it is found necessary to oppose a more considerable mound; on some of the bends where the force of the current is very great, the embankment is 15 feet high and 30 at the base. As there is no stone to be had, the only material used is a soft clay with cypress staves placed next the river, and the whole covered with earth and sodded. What is considered a good levee, may in most places be made for 500 to 1,000 dollars a mile; but in many it would cost several thousands. Every individual is required to keep up the levee in front of his own land, and before the season of high water it is inspected by commissioners appointed for the purpose in each parish, and if found insufficient it is made at his expense. During the continuance of the floods the levees demand the

most vigilant attention ; they must be continually watched, and all hands are often drawn from the fields to guard them for whole days and nights. On some plantations, one sixth part of the annual labor of the hands is employed in repairing the levees.

A *crevasse* is a breach formed in the levee by the waters of the river in time of inundation. The one which broke through the levee six miles above New-Orleans, in May, 1816, was 140 yards broad, and the water six feet deep.

A *crevasse*, says Mr Brackenridge, " rushes from the river with indescribable impetuosity, and a noise like the roaring of a cataract, boiling and foaming, and tearing every thing before it. When a *crevasse* occurs, the inhabitants, for miles above and below, instantly abandon every employment, and hasten to the spot, where every exertion is made day and night to stop the breach, which is sometimes successful, but more frequently, the hostile element is suffered to take its course. The consequences are the destruction of the crop, and the buildings, and sometimes the land itself is much injured, the current carrying away the soil, or leaving numerous logs and trees, which must be destroyed before the land can again be cultivated.

Commerce and Manufactures.] The difficulty of ascending the Mississippi has heretofore cut off New-Orleans from supplying the western states with foreign merchandize. It was found cheaper to purchase articles in New-York and Philadelphia, and carry them *by land* to Pittsburg, at the forks of the Ohio, and thence down that river to the various towns on its banks, than to transport them up the Mississippi and the Ohio.

Steam boats are now successfully employed in ascending these rivers ; and, in consequence, New-Orleans is rapidly becoming the emporium of the western country.

The bulky articles of the western country, particularly flour, corn, meal, and beef go down the Mississippi and are cleared out at New-Orleans. The exports from Louisiana, of its own produce, consist chiefly of cotton, sugar and molasses.

In 1804, the exports from this state, (then Orleans territory) amounted, in value, to \$1,600,362. In 1806, they amounted to \$3,887,323, and in 1814, to \$5,102,610. From Oct. 1, 1816, to Oct. 1, 1817, they are stated at \$13,501,036 ; nearly two thirds as much as that of the whole United States in 1791. The number of arrivals and clearances at the port of New-Orleans, during the year ending Oct. 1, 1817, was 1,030. During the same year, 1500 flat-bottomed boats, and 500 barges, arrived at the city, from the upper country.

No less than 10,833,704 pounds of sugar of domestic growth were exported coastwise from New-Orleans, in the year 1816, principally to the ports of Baltimore, Philadelphia, and New-York, and this was in addition to the quantity carried up the Mississippi river, and consumed in the state of Louisiana.*

* Pitkin's Statistics.

The shipping owned in New-Orleans, in 1810, was 13,240 tons. The nett revenue derived from duties on merchandize paid in this state, in 1804, was \$279,272; in 1807, \$480,275; in 1815, \$984,909.

According to the imperfect returns of the marshal in 1810, the value of the manufactures of Louisiana, for that year, was \$34,657. The real value is supposed to have been \$200,000.

Islands.] The city of New-Orleans stands upon an island, which is formed by the river Mississippi, on one side, and the lakes Ponchartrain and Maurepas, together with an outlet of the Mississippi, called the river Iberville, on the other. It is about 160 miles long, and from 3 to 50 broad. It produces sugar, lemons, oranges and figs.

There is an island in Barrataria bay, which was occupied by pirates in 1811, and fortified. The island is remarkable for its health, strength as a military position, and the vast quantity of shell fish, with which its waters abound. In time, this may become a place of wealth and importance, as by a late survey of the country in its rear it is found, that there is a district of half a million of acres, very fertile, and sufficiently high to constitute a healthful settlement, of the first rate sugar lands. Barrataria affords a safe and capacious harbor for light ships of war, and merchant vessels.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE, FACE OF THE COUNTRY, SOIL AND AGRICULTURE, RIVERS, LAKES AND BAYS, ANIMALS, MINERALOGY.

Climate.] About 30 N. lat. may be assumed as the region of snow; few instances occur of its falling below that parallel. There is a singular coincidence between the line where snow ceases, and sugar cane commences. The highest point in, or near, the valley of the Mississippi, where the sugar cane has been cultivated to advantage, is about 30 12 N. lat. Many attempts have been made to cultivate sugar cane above 31 N. lat. some of which produced delusive results, as no instance has yet occurred, where the existence of that plant was not found precarious, when attempted in places where snow had been frequent.*

The southern parts of this state in summer are hot, sultry, and unhealthy. The northern parts are more temperate and healthy.

Face of the Country.] About 10,000 square miles, or one fifth of the surface of this state, may be denominated prairie land. For every purpose of a general sketch, these prairies may be described as forming one immense meadow, stretching along the whole southern border of the state, from the Pearl to the Sabine river.

* Emigrant's Guide.

The country about the mouths of the Mississippi, for 50 miles, is one continued swamp, destitute of trees, and covered with a species of coarse reed, 4 or 5 feet high. Nothing can be more dreary than the prospect from a ship's mast, while passing this immense waste.

A large extent of country in this state is annually overflowed by the Mississippi. From lat. 32 to 31°, the average width of overflowed lands may be estimated at 20 miles; from lat. 31 to the efflux of the Lafourche, a little above 30°, the width is about 40 miles. The whole country on the Mississippi, below the efflux of the Lafourche, is liable to be inundated. The whole extent of lands thus liable to inundation, is estimated at 8,340 square miles, and if to this be added 2,550 square miles for the inundated lands on Red river; the whole surface of the state, liable to inundation, will amount to 10,890 square miles. Of this extent, not one half is actually covered annually with water. The immediate banks of all the streams are seldom, and many of them never inundated; and they afford strips of rich land, from a mile to a mile and a half wide.

The country between the Mississippi, Iberville, and Pearl rivers, is an important part of the state. The southern half is a level country. The northern part presents an undulating surface, covered with a heavy growth of white, red, and yellow oak, hickory, black walnut, sassafras, magnolia and poplar.

The northwestern parts of the state have been but recently explored. The country on both sides of Red river, from its mouth to the limits of the state, is intersected with lakes, more than 40 in number, and all communicate with the river. The bottoms on the river are from 1 to 10 miles wide, and of very fertile soil.

Soil and Agriculture.] The parts of the state which have been brought under cultivation, are almost exclusively alluvial lands, on the banks of the Mississippi, the Teche, the Red river, the Ouachitta, and its branches. Such is the fertility of these lands, that no deterioration is perceptible, even on fields which have been cultivated 60 or 70 years.

From the Balize to Baton Rouge, on one side of the Mississippi, and the Red river on the other, land sells by the front acre; the usual depth of each tract is 40, and sometimes 80 acres, but the first 20 acres immediately on the river are alone cultivable, upon an average; beyond this is an impenetrable cypress swamp, in some places, 40 miles wide, constantly under water; the cultivated land being a narrow band on each side of the river. Within the first 10 miles above and below the city of Orleans, on either shore, the front acre sells from 2000 to 4000 dollars; and as you recede from the city, the land becomes proportionally cheaper.

The staple productions of this state are cotton, sugar, and rice. Cotton is much more extensively cultivated than sugar; the former is universal, while the latter is confined to the southern part of the state. Tobacco and indigo could be as extensively cultivated as cotton, but they do not afford the same profit to the

planter ; they have each been staples of Louisiana, but have long been abandoned, and their places supplied by sugar and cotton.

On the banks of the Mississippi, the Lafourche, the Teche, and the Vermillion, below lat. $30^{\circ} 12' N.$ wherever the soil is elevated above the annual inundation, sugar can be produced. On all these rivers, except the Vermillion, sugar farms and houses, are at this time established to advantage.

In all other parts of the state cotton is the general staple. The best districts for cotton are the banks of Red river, Ouachitta, Bayou Boeuf, Teche, and the Mississippi. But though cotton succeeds best on the deep alluvion of the rivers, it is extremely profitable on the prairie land. Land very favorable to cotton occurs extensively between the Red river and the Sabine, and between the Red and Ouachitta rivers, in the district belonging to the United States.

Rice is the third in value of the staples of Louisiana. Its culture is more particularly confined to the banks of the Mississippi, where irrigation can be easily performed. There is a very large extent of country in the state admirably adapted to the cultivation of rice, and which will be used for this purpose whenever the demand for this article shall render it necessary.

It has been calculated, that in the state, the quantity of land adapted to the cultivation of sugar, rice, and cotton, is as follows ; sugar 250,000 acres ; rice 250,000 acres ; cotton 2,400,000.* Some of the sugar planters have derived a revenue in some years of \$1000 from the annual labor of each of their working hands ; from \$500 to 750 is the ordinary calculation. Cotton, in some years, has been equally profitable. Such is the demand for laborers, that an ordinary field slave, born in the country, or seasoned to the climate, is worth from \$1500 to 2000 in cash.†

The whole quantity of sugar annually consumed in the United States, for some years past, is stated at 70,000,000 pounds. In 1810, about 10,000,000 lbs. were made in this state ; in 1814, not less than 15,000,000 ; and in 1817, the amount is stated at 20,000,000 lbs. There can be little doubt, that at a period not very far distant, a sufficient quantity of sugar may be made within the limits of the United States, for the consumption of the inhabitants.

Wheat and rye might be cultivated in the state of Louisiana, but from the facility of importing flour and whisky down the Mississippi, they are neglected. The fruits most generally cultivated are, the peach, orange, and fig ; the apple does not thrive well. Plums, grapes, and pomegranates grow luxuriantly, and produce abundantly. The gardens in Louisiana are very much neglected. The attention paid to the culture of the rich staples, engrosses so much time, as to leave little leisure for the more elegant, but less lucrative, branches of agriculture.

Rivers.] The rivers of this state empty into lake Pontchartrain, the Mississippi and the Gulf of Mexico.

* Brown's Western Gazetteer.

† Hon. Francis X. Martin, of New-Orleans.

Pearl river heads in the Choctaw country, in the state of Mississippi, near lat. 33° N. and empties into the Rigolets, or channel leading from lake Pontchartrain to lake Borgne. In the southern part of its course, it is the boundary between Mississippi and Louisiana.

Chefuncti, is a small river which empties into lake Pontchartrain, at Madisonville. The *Amite* has been described.*

Iberville river is properly one of the outlets of the Mississippi. It leaves it 20 miles below Baton Rouge, and runs east into lake Maurepas. It is navigable only 3 months in a year, and then only by vessels drawing less than 5 feet water. It is perfectly dry during the rest of the year, from the Mississippi to the mouth of the *Amite*.

The *Mississippi* waters the eastern frontier of Louisiana, from lat. 33 to 31°; below lat. 31° its course lies wholly within the state. Like the Nile, the Mississippi enters the sea by many different mouths. These outlets are called *Bayaus*. They have been already described.†

Red river falls into the Mississippi in lat. 31° 5' N. lon. 91° 47' W. 1068 miles below the Missouri. It rises in Mexico, and is there, according to Humboldt, believed to be the same with the Rio de Pecos, which rises near lat. 38° N. and lon. 104° W. a little north-east of the village of Taos. Its length, on this supposition, is upwards of 1200 miles. It enters the state of Louisiana, near the northwest corner, in one undivided stream, and flows south into the state, about 30 miles, and then spreads out into a number of channels and lakes, forming an inundated swamp, six miles wide, and 50 long. This overflowed tract in *Red* river, may be strictly called the commencement of its delta, as the river never again unites in one continuous stream. All the creeks which enter *Red* river below the commencement of this inundated tract, form lakes, previous to entering the main stream. The navigation of this river is interrupted at a place called *Rapide*, 135 miles from its mouth, by a ledge of rocks, which, however, might easily be removed. Further up many parts of the channel are choked with trees. The lands on *Red* river are considered the best in the United States for the cultivation of cotton.

Ouachitta, or *Wachitta*, river, rises in Missouri territory, and flowing south into Louisiana, joins *Red* river, 30 miles from its mouth. About 30 miles by the course of the river, above its junction with *Red* river, it is joined by the *Tensaw* and *Ocatahoola*; and after their junction it usually takes the name of *Black* river. The *Ouachitta* can be ascended in boats to the forks, a distance of 600 miles. The margin of this river is alluvial soil, and very well adapted to the production of cotton. There are but few places where more pleasant and profitable establishments could be formed than on *Ouachitta*. Sugar excepted, there is no fruit, or other vegetable production raised in any part of Louisiana, or Mississippi, that cannot be brought to perfection on its banks. The same remarks may be applied to the

* See p. 571.

† See p. 113.

Boeuf, Macon, and Tensaw, branches of the Ouachitta, from the east.

Teche river has its remote sources near the centre of the state. Its course is S. E. till it joins the *Atchafalaya*, about 15 miles above its entrance into the gulf of Mexico. Vessels drawing 5 feet water go up to New-Iberia. The banks are high, rising far above any swell ever known in the river. Yet they were evidently formed by alluvion. There must have been a time when a body of water annually inundated this country. At this time the banks of the *Teche* possess the inexhaustible fertility of alluvial soil, without the inconvenience of inundation.

Vermillion river rises near Opelousas, and flowing south, empties into the western side of Vermillion bay. Its course is west of that of *Teche*.

Advancing westward, the next stream is *Mermentau*. The lower part of the *Mermentau* opens into a spacious lake, and, before it empties into the sea again, assumes the form and width of a small river.

The next river west of the *Mermentau* is the *Calcasieu*. This river rises in the parish of Natchitoches, in lat. $31^{\circ} 30'$, and flowing south, falls into the gulf of Mexico, 40 miles east of the *Sabine*. Like the *Mermentau*, this river dilates into a large lake, and again contracts to the form of a river, before entering the gulf of Mexico.

Sabine river, from its mouth to lat. 32° is the western limit of Louisiana. The mouth of the *Sabine* is in lat. $29^{\circ} 36'$ and lon. $93^{\circ} 57' W$. The river is about a quarter of a mile wide, for six miles from its mouth. It then dilates into a wide shallow lake, 30 miles long, and 8 wide; and on an average about 3 feet deep.

Lakes.] There is a chain of lakes, which wash the eastern side of the island of New-Orleans. The first of these, lake *Maurepas*, lies about 20 miles north of New-Orleans, and is 12 miles long, and 8 wide. It receives and discharges the river *Amite*. Nine miles further east is lake *Pontchartrain*, which lies immediately behind the city of New-Orleans. It is 35 miles long, 25 wide, and generally from 10 to 15 feet deep. It communicates with lake *Maurepas*, on the N. W. with New-Orleans and the *Mississippi* on the S. and lake *Borgne* on the S. E. Lake *Borgne* lies still further east, but by a deep bay approaches within a few miles of the *Mississippi*, with which it communicates by means of a bayou, and *Vilere's* canal. It was by this route that the British army approached New-Orleans in the winter of 1814.

Sabine, *Calcasieu*, and *Mermentau* lakes are mere expansions of the rivers of the same names, and have already been noticed.

Animals.] The extensive prairie lands in the southwestern part of this state are most admirably adapted to the rearing of cattle, and have hitherto been used almost exclusively for that purpose. This region, embracing the district of Opelousas, and the greater part of *Attacapas*, seems to be intended by Providence as the meadow lands to supply with beef, butter and cheese, the inhabitants of the productive banks of the *Mississippi* and its intermediate streams. Many of the richer planters on the *Teche*, *Vermillion*, and other agricultural

districts, have stock farms established upon the Mermentau and Calcasieu rivers. The cattle are guarded by men employed for that purpose, who have in most cases as their reward, one fifth of the increase. Three or four active men, will manage a stock producing annually from 300 to 500 calves.

The Sabine and Calcasieu lakes are the retreat of immense flocks of wild geese and ducks, during the winter season. They are found more or less in other parts of the country, but in no place in such numbers as on the two lakes of Sabine and Calcasieu. The hunter takes his station on a convenient spot, loads and fires as fast as possible without taking particular aim, until he finds he has killed a sufficient number to load his horses.*

Minerology.] Salt springs are frequent upon all the streams between Ouachitta and Red river. Two or three of these springs are in operation; the principal manufactory is in the neighborhood of Natchitoches. The inhabitants of Natchitoches, Rapides and other settlements in the vicinity, are now supplied with excellent salt from one to two dollars per barrel. There are springs on the Ouachitta and Dugdomoni, equally productive with that near Natchitoches, and capable of supplying any quantity which the exigencies of the neighboring country may demand.

WESTERN TERRITORY.

UNDER this head, we embrace the whole country, which lies W. of the western boundaries of Missouri and Arkansas territories.

Boundaries and Extent.] It is bounded S. by the parallel of 42 degrees of N. latitude, which separates it from the Spanish province of New-California; W. by the Pacific ocean; N. by the Russian dominions; E. by the chain of Rocky mountains, which divide it from the territories above named. It extends on the Pacific ocean, from cape Orford to Cross sound, from lat. 42° to 56° N. 14 degrees,† or about 1000 miles in length; its average width is 4 or 500 miles. Its east and west lines, along the mountains, and the ocean, are very crooked. The most eastern limit, is in about lat 112°; and its most western, about 135°.

Face of the Country, Soil, Climate, &c.] The country along the Rocky mountains, for several hundred miles in length, and about 50 wide, is a high, level plain; in all parts very fertile, and in many places covered with a growth of long leaved pine. This plain is chiefly interrupted, near the streams of water, where the hills are steep and lofty; but the soil is good, with few stones, and bet-

* Brown's Western Gazetteer.

† This extent on the Pacific, is given on the ground of the report, that Russia has ceded to the United States, all her right to the territory S. of lat. 56°. We vouch not for the correctness of the above report.

ter timbered than the level country. Nearly the whole of this wide spread country, is covered with a profusion of grass and plants, among which are a number of esculent, nutritious roots. The air is pure and dry, and the climate milder, than in the same parallels on the Atlantic. This district affords many advantages to settlers, and is capable of yielding in abundance the necessaries of life. Toward the mouth of the Columbia, and along the sea coast, the soil is good, and the climate still milder; but the very frequent rains render it an uncomfortable abode.

Divisions.] In Thompson's New General Atlas, of 1817, this territory is divided, beginning N. and proceeding S. into

NEW CORNWALL, NEW HANOVER AND NEW GEORGIA.

It embraces the northern part of *New Albion*. The settlement on Columbia river, Nootka sound, Queen Charlotte, or Washington islands, Dixon's Entrance, &c. are places of note within this territory.

Columbia River Settlement.] To what has already been said on this article, p. 117, we add, that the Spaniards claim the discovery of this river, to which they gave the name of *Entrada de Ceta*. It was entered in the summer of 1791, by Capt. Gray, an American, in a vessel from Boston, called *Columbia*, who gave the name of his vessel to the river, which has since been, and will doubtless remain, its fixed name. Lt. Broughton, under the direction of Capt. Vancouver, afterward explored the river, for 100 miles. The entrance of this river is between breakers, which extend from a cape on the N. side, called *cape Disappointment*, to a point on the southern shore, over a sort of bar, or extensive flat, on which is only 4 and a half fathoms water. The best leading mark is to bring a projecting point, which looks like an island near the northern shore, to bear by compass about E. by N. and then to steer for it; but no vessel should attempt entering, except when the water is perfectly smooth. A passage may then be undertaken, cautiously, with safety.

The banks of Columbia are of good soil, and are thickly inhabited by many tribes of Indians. The river yields immense quantities of salmon, which furnish the natives with a great part of their food. The water is so clear, that the fish are seen at the depth of 15 or 20 feet; and they float in such quantities down the stream, or are drifted ashore, that the Indians have only to collect, split and dry them on the scaffolds, which they have prepared for the purpose.

The American settlement here promises a rapid growth, and will give great facilities and protection to our increasing commerce on the coasts and islands of the Pacific ocean. It is thought that the independence of Chili will conduce to the growth of this settlement. For beside the supplies which an infant establishment may draw from Chili, the settlement at Columbia river, will have a ready and unrivalled market on the southern Spanish coast,

particularly in Chili, for what are understood to be its staple commodities. Ships' spars and lumber are scarce, and in some places are not to be had, between Guayaquil and Concepcion. The shores of the Columbia river are now covered with this sort of lumber, and of the first quality.* The Catholic settlements afford a quick market also for the salmon and halibut, of which there are prodigious and inexhaustible quantities in this noble river.*

Nootka Sound. Capt. Cook entered this sound in 1778. Its entrance is in the E. corner of Hope bay, lat. 49 36 N. lon. 126 48 W. The entrance is between two rocky points, lying E. S. E. and W. N. W. from each other, at the distance of between 3 and 4 miles. Within these points the sound widens, particularly to the northward; and in its centre are many islands of different sizes. The harbors within it are numerous. The land on the seacoast is of middling height, and level; but within the sound it rises in all directions, into steep hills, which, as well as the level country, are covered with very thick woods. The climate was thought by our navigators to be milder, than in the same latitude on the eastern coast of the continent.

Two towns, or villages of natives were discovered by Capt. Cook, whose inhabitants he estimated at 2000 souls. The houses were built of very long, broad plank, and disposed in ranges, rising one above the other; the largest in front. Their furniture consists chiefly of boxes, piled on each other, containing their clothing, skins, and other things of most value. The confusion, nastiness, and stench of their habitations, exceed description. Their worship images, called "Klumma," "Natakkoo," and "Matseeta." They are monstrous figures of wood, carved into human shape, and have a mat placed before them. They make offerings to these images. Yet, they were held in such slight estimation by their worshippers, Capt. Cook says, that for "a small quantity of iron or brass, he could have purchased all the gods in the place."

In 1786, a company of British East India merchants made a settlement here, for carrying on the fur trade between this coast and China, which was broken up by the Spaniards in 1789.

In 1787, Capt. Kendric from Boston, purchased of the natives on this coast, a tract of country, comprehending four degrees of latitude, embracing Nootka sound, the deeds of which, executed in customary Indian form, were registered in the office of the American consul, resident in China.

Queen Charlotte, or Washington, Islands. Capt. Dixon discovered these islands in 1787, and gave them the first of these names; Capt. Gray, in 1789, visited them, and supposing himself to be the discoverer of them, gave them the latter name, which, as they now belong to the United States, we shall consider them as retaining.

Washington islands, consisting of 3 principal ones, with many smaller, extend from lat. 51° 52 to 54° 28 N. and from lon. 130°

* Bland's Report.

52, to 133° 52 W. Dixon's Entrance divides this cluster of isles. Capt. Cordis, who visited the principal of these islands in 1790, estimated the number of its inhabitants at between 10 and 11,000, who were under the direction of 18 chiefs. He states that these people are well made, robust, active and athletic. Their dead are put in a box, which is raised into the top of a high tree, there fastened and left to perish.

Multnomah river and island. This river is the largest branch of the Columbia. Its head waters are not distant from those of the Colorado of California, and of the Rio del Norte of the Gulf of Mexico. Its general course is from S. E. to N. W. It flows in a deep, gentle, smooth current; and, with numerous tributaries, waters and enriches a vast extent of fine country, thickly peopled with various tribes of Indians.

At the mouth of this river and an inlet from the Columbia, is formed an island of 20 miles long, and from 5 to 10 broad. The soil is very rich, and well timbered, and capable of high cultivation. But the chief wealth of this island consists in the numerous ponds in its interior, abounding with the common arrow head (*sagittaria sagittifolia*) to the root of which is attached a bulb, growing beneath it in the mud. This bulb, to which the Indians give the name of *Wapitatoo*, is the great article of food, and almost the staple article of commerce, on the Columbia. It is never out of season. The island is frequented by Indians, who collect it at all times of the year. This plant is found, but in less quantities, in the whole of the surrounding valley, which extends far to the S. and is about 60 miles wide from E. to W. and is called *Columbia Valley*, which see.

Passage from Missouri Territory across the Rocky mountains to the Western Territory. The most convenient passage is from the great falls, in the Missouri, to the navigable waters of the Kookscooskee river, a branch of the Columbia, 340 miles; 200 of which is good road, the remainder over a tremendous mountain, steep and broken, 60 miles of which is covered several feet deep with snow. This passage is practicable from the 1st of June to the 1st of December. The distance from the navigable part of the Kookscooskee to its entrance into Lewis' river, is 73 miles; and down that river 154 miles to the Columbia, and thence 143 miles to the Pacific. The navigation of these rivers is good and safe from the 1st of April to the middle of August, by making a portage of 1200 paces at the falls of Columbia, 250 miles from its mouth, and a portage of 2 miles at the long narrows, 6 miles farther down.

Columbia Valley. This valley is of unknown length, on the banks of Columbia river. It extends E. and W. about 30 miles. It is well fitted for a settlement, and would support, with due culture, 40 or 50,000 souls. A fallen fir tree in this valley was measured by Messrs Lewis and Clark, and found to be 318 feet in length, though its diameter was only 3 feet. Its soil is a dark, rich loam, not much injured by stones, and though waving, not

too steep for cultivation ; and a few miles from the river the valley widens into rich extensive prairies. Beyond these the timber is abundant.

Falls in Columbia river. Three are described by Captains Lewis and Clark ; the first, descending the river, is 261 miles from its mouth, the second, 6 miles below ; the third 65 miles still lower down. The portage at the first, is 1200 paces ; at the second and third 2 miles each. At the first, called *The Falls*, the channel of the river is compressed by a long rocky island, within the space of 150 yards, and after being somewhat enlarged, it is again compressed by a second and much larger island of black rock, when it descends down a perpendicular fall of 8 feet. At the second, called *The Long Narrows*, the channel of the river is compressed to the width of 45 yards, through which the whole body of the river passes. Here it swells, and boils, and whirls, with wild and terrific agitation. Other rapids succeed this, for about 3 miles, where the river has worn a channel of 50 to 100 yards broad, in a hard, rough, black rock, and passes with tremendous swiftness and roar. At the last great rapid, the river is, in like manner, compressed into a narrow channel, for the distance of about 400 yards.

Commerce. This now consists of undressed and dressed skins of elk, sea otter, the common otter, beaver, common fox, spuck and tiger cat. For these are given, by those traders who visit this coast, such articles for use and ornament, as are usually bartered in the Indian trade.

Indians, their Manners and Customs. The tribes which inhabit on the rivers of this territory, the Columbia particularly, are very numerous. Among these are the Solihks, at the entrance of Clark's river, the Chimnapums at the mouth of Lewis's river ; the Wallowalabs, Pisquitpahs, Shahalas, several tribes of Wappatoes, Killamucks, Clotsops, Chinooks, and Cathlamas. In person, dress and manners, there is a great resemblance among these Indians. They are of copper color, small, badly shaped, have large ankles, crooked legs, broad, flat feet, wide mouths, thick lips, wide nostrils, black eyes, and wide, flat foreheads. They dress in a robe of skins, reaching to the middle of the thigh, tied across the breast. The character of these Indians is generally pacific and humane. It is believed that the arts of civilized life, and the knowledge and practice of Christianity, could, with due pains be introduced among them.

The whole number of Indians W. of the Rocky mountains, is estimated at 80,000.

SPANISH AMERICA.

GENERAL OBSERVATIONS.

EXTENT, DIVISIONS, RELIGION, GOVERNMENT, INHABITANTS,
COINAGE, COMMERCE.

Extent.] Spain claims about half of the western continent. On the Pacific, she claims from *cape Orford*, in lat. 42° N. to the southern extremity of the continent; though her highest northern settlement is *Puerto San Francisco*, in lat. $37^{\circ} 48'$ N. and her highest southern on the continent, *fort Maullin*, in lat. $41^{\circ} 43'$ S. The length of coast between these two settlements is about 5800 miles.

On the Atlantic, Spain claims from the mouth of the Sabine river, lat. $29^{\circ} 36'$ N. lon. $93^{\circ} 57'$ W. the whole remaining coast of the gulf of Mexico, of the Caribbean sea, and of the Atlantic, to the mouth of the *Essequibo*, in lat. 7° N lon. $58^{\circ} 40'$ W. On the S. E. coast of South America, she also claims from the mouth of the little river *Chuy*, in lat. $33^{\circ} 40'$ S. to the extremity of the continent; although her real southern limit, by the treaty with the *Pampas*, is *cape Lobos*, in lat. $37^{\circ} 45'$ S.

By the recent revolution in South America, Spain has been expelled from the southern part of the continent; and though she still claims the country within the above-mentioned limits, she has been driven from the possession of all the coast, (with a few trifling exceptions) south of lat. 25° S. both on the Atlantic and Pacific shores. Venezuela also, extending on the northern coast from the *Essequibo*, lon. $58^{\circ} 40'$ W. to *Cape de la Vela*, in lon. $72^{\circ} 30'$ W. has declared itself independent. Not more than one quarter of the coast of S. America, therefore, is now under the undisputed dominion of Spain.

Divisions.] These divisions we give generally as they lately stood, and shall notice in the proper place their present condition.

I. In N. America.

1. Viceroyalty of Mexico, or New-Spain.
2. Captaingeneralship of Guatemala.

II. In the West-Indies.

1. Captaingeneralship of Cuba.
2. Captaingeneralship of St. Domingo
3. Captaingeneralship of Port Rico.

III. In South America.

1. Viceroyalty of New-Granada or Western Terra Firma.
2. Captaingeneralship of Caraccas, Venezuela, or Eastern Terra Firma.*
3. Viceroyalty of Peru.
4. Viceroyalty of Buenos Ayres.*
5. Captaingeneralship of Chili*

* These provinces have declared themselves independent.

Religion.] The Catholic is the religion established in all these countries. There are three tribunals of the inquisition in Spanish America, one at Mexico, one at Carthagena, and one at Lima. For a considerable period the attention of these bodies had been chiefly confined to the suppression of offensive books. The catalogue of prohibited authors, printed in 1790, contained the names of 5420; many of whom were among the first writers that the world has produced.

Government.] The fundamental maxim of Spanish jurisprudence, with respect to America, was always to consider the provinces as vested in, or belonging to the crown. The bull of Alexander VI. on which, as her great charter, Spain founded her rights, bestowed all the regions that had been, or should be discovered, as a *free gift* on Ferdinand and Isabella; and constituted them not only the sovereigns, but the proprietors of the soil. From the crown all grants of land emanated, and to it they finally reverted.

The supreme direction of all the provinces was committed to the *council of the Indies*. This council was first established by Ferdinand in 1511, and brought into a more perfect form by Charles V. in 1524. It lately consisted of a president, 22 counsellors, 4 secretaries, besides other officers; and was divided into 4 *camaras*, or *chambers*; two of which were especially charged with affairs of administration, a third with appeals from the legal decision of the royal audiences; and the fourth, composed of the oldest counsellors, with the nomination of viceroys, captain generals, governors, and other magistrates, archbishops and bishops. The whole council, also, was entrusted with the enactment of laws. All ordinances relative to the government and police of the colonies, originated here, and must have been approved by two thirds of all the members before they were issued in the name of the king.

The king's representative in each province is either a viceroy, or a captain general. The viceroys are appointed in some cases for three, in others, for five years, and possess the regal prerogatives within their own governments. Like the king they exercise supreme authority in every department of government, civil, military, and criminal. The external pomp of their government well accords with its real dignity and power. A sumptuous establishment, officers of state, and a regular household, numerous attendants and guards both of horse and foot, displaying the insignia of civil power, and of military command, scarcely retain the semblance of delegated authority. The stated salaries of the viceroys are moderate; their real incomes from various unauthorized sources are enormous. The viceroy is president of the audience.

The captain generals possess power in their own provinces, scarcely inferior to those of the viceroys, but with less of pomp, and fewer of the insignia of royalty.

The jurisdictions, or intendencies, into which each of the colonies is divided, have each its own governor or intendant, who takes the title of lieutenant general, has important civil powers, and is supreme military commander of the jurisdiction.

The royal audiences are the supreme tribunals of justice, both in civil and in criminal causes. Of these there were 13 :

1. Guadalaxara, } in the viceroyalty of Mexico.
2. Mexico, }
3. Guatemala, in that captain-generalship.
4. Havana, in Cuba.
5. St. Domingo in Hispaniola.
6. Panama, •
7. Santa Fe de Bogota, } in New-Granada.
8. Quito, 1563, }
9. Caraccas, 1786, in Venezuela.
10. Lima, 1542, in Peru.
11. St. Jago, in Chili.
12. La Plata, 1559, }
13. Buenos Ayres, 1783, } in Buenos Ayres.

Each audience consists of a president, who is usually the viceroy, or captain general, but, in several, the governor of the province in which it is placed ; of a regent ; a number of *oiders* (auditors) or judges ; fiscals for civil, criminal, and financial affairs ; and one or more reporters and *alcaldes* or *alcades*. Each member has the title of *Higness*. The audience in the absence of the viceroy has all the viceregal powers and prerogatives. It is the high court of justice in each colony, receives appeals from all civil and criminal tribunals, and is the court of final appeals in all causes where not more than \$10,000 is concerned. As a deliberative body the viceroy is directed to consult it on every emergency. If he acts contrary to the advice of the audience, he takes the sole responsibility on himself. The audience has also the power, in certain cases, of remonstrating against the political regulations of the viceroy, and of laying the matter before the council of the Indies. That body also looks to the audience for correct information in case of any dispute between a viceroy and a subordinate governor.

Inhabitants.] There are six great classes of inhabitants in Spanish America, 1. The *whites* ; 2. The *Indians* ; 3. The *negroes* ; 4. The *mestizos*, or descendants of whites and Indians ; 5. The *mulattoes*, or descendants of whites and negroes ; 6. The *Samboes*, or descendants of Indians and negroes.

The whites compose two classes, 1. The *Europeans*, generally called *Chapetones*, and, in Mexico, *Gachupines* ; 2. The *criollos* or *creoles*, or whites of European extraction born in America.

The mestizos are classified according to their descent, 1. The mestizo proper is $\frac{1}{2}$ white and $\frac{1}{2}$ Indian ; 2. The *terceron mestizo* is $\frac{3}{4}$ white and $\frac{1}{4}$ Indian. These very often are as white as the creoles, or as the southern Spaniards ; and the offspring of a white and a *terceron mestizo* have all the privileges of a white. 3. The *sambo mestizo* is $\frac{1}{2}$ white and $\frac{3}{4}$ Indian.

The classes of the mulattoes are more numerous.

Coinage.] The following statement of the whole coinage of Spanish America, in the year 1796, is given in the written report of the viceroy Don Francisco de Taboada y Lemos, to his successor, the marquis of Osorno.

Coined at Mexico	24,000,000	} North America {	24,200,000
at Guatemala	200,000		
at Lima	6,000,000		
at Potosi	4,600,000	} South America {	14,000,000
at St. Jago de Chili	1,200,000		
at Popayan	1,000,000		
at Santa Fe de Bogota	1,200,000		
		Total	<hr/> \$38,200,000

Commerce.] It was early the object of the Spanish monarchs to secure the produce of the colonies to the mother country. They accordingly prohibited all intercourse between them and foreign nations. Charles V. went farther, and restricted the commerce of the colonies to the single port of Seville; and ordered all ships, both outward and inward bound, to be inspected by the *Casa de la Contratacion*, a commercial board at Seville. The Guadalquivir at that time was navigable for the largest vessels up to that city. It was carried on by fleets annually equipped, which sailed under strong convoys; consisting of two squadrons, one called the *galleons*, and the other the *flota*. The galleons sailed for Porto Bello, and the flota for Vera Cruz. In 1650, when this trade was most prosperous, the two squadrons did not exceed 27,000 tons. The Guadalquivir, after a while, ceased to be navigable, and the port of Seville, in 1720, was changed for that of Cadiz. Caraccas was the first province released from this commercial thralldom. Its trade was granted, in 1728, to the company of Guipuscoa, which was permitted to send two merchant frigates, of 50 guns, laden with the produce of Spain, to be discharged at the port of La Guira; and in 1734, to send any number of vessels whatever.

In the war of the succession, Spain opened the trade with Peru to her allies the French. But nothing effectual was done for the emancipation of commerce, till the ministry of Galvez, when the commercial restrictions were ultimately, in 1778, and 1785 thrown off, and a free trade opened between the colonies and the mother country.

Previous to 1778, only 12 or 15 register ships were employed in the trade with Spanish South-America, and these seldom performed more than one voyage in three years. The following table exhibits the effect of the decrees of 1778, in a single year.

Trade between Spain and Spanish South-America in 1778.

PORTS.	Imports to South-America.				Exports from S. America			
	Ships.	Spanish produce.	Foreign produce.	Total.	Duties	Ships.	Value of cargoes	Duties.
		<i>l.</i>	<i>l.</i>	<i>l.</i>	<i>l.</i>		<i>l.</i>	<i>l.</i>
Cadiz	63	332,701	922,543	1,255,244	66,926	57	860,257	24,383
Corunna	25	69,691	66,826	136,507	7,184	21	683,328	43,387
Barcelona	25	163,290	52,513	215,803	8,384	25	107,714	1,932
Malaga	34	85,637	12,927	98,564	3,619	10	24,746	120
St. Andero	13	19,128	99,807	118,935	7,666	8	114,852	1,680
Alicant	3	5,299	2,308	7,607	528	8	29,896	•
Teneriffe	9	30,165		30,165	1,735	6	43,164	2,780
	170	705,911	1,156,924	1,862,835	95,841	135	1,863,957	74,287

In 1788 the commerce between Spain and Spanish South America was as follows:

PORTS.	Imports to South-America.			Exports from S. America
	Spanish produce.	Foreign produce.	Total.	
	<i>L.</i>	<i>L.</i>	<i>L.</i>	<i>L.</i>
Seville	95,276	14,342	109,618	3,249
Cadiz	2,281,311	3,038,346	5,319,657	18,382,886
Malaga	318,801	33,684	352,485	296,738
Barcelona	742,210	52,083	794,293	886,162
Corunna	249,838		249,838	2,040,400
St. Sebastian	9,114	79,488	88,602	283,888
Alfaquez	21,610	360	21,970	6,231
Gijon	1,544	28,300	29,844	16,052
St. Andero	127,072	281,949	409,021	657,398
Alicant	13,564	815	14,379	15,876
Palma	14,972		14,972	6,852
Canaries	55,264	32,991	88,255	71,586
	3,930,576	3,562,358	7,492,934	22,667,320

VICEROYALTY OF MEXICO, OR NEW-SPAIN.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT, BOUNDARIES, DIVISIONS, PROVINCES, NAME, HISTORY, ORIGINAL POPULATION, RELIGION, GOVERNMENT, POPULATION, REVENUE, MANNERS, LANGUAGES, LITERATURE, CITIES AND TOWNS, ROADS, MANUFACTURES AND COMMERCE.

Extent.] THE territories subject to the viceroy of Mexico extend, on the Pacific, from cape Orford,* lat 42° N. to the boundary of Guatemala, in lat. 16 12 N. and lon. 94 15 W. On the Gulf of Mexico, the northeastern limit is the Sabine river. The southern limit of the viceroyalty, on the Gulf is supposed to be on the eastern shore of Yucatan, in about lat. 15 30 N. The length of coast on the

* Port St. Francisco is the highest settlement, lat. 37° 48 N.

Pacific is upwards of 2800 miles. Its greatest breadth on its northern line is 960 miles ; its least on its southern is 160 miles.

Boundaries.] On the N. and N. E. lie the United States of America ; on the E. the Gulf of Mexico ; on the S. E. the captain-generalship of Guatemala ; on the S. W. and W. the Pacific ocean.

Divisions.] This viceroyalty, in 1776, was divided into 12 intendencies, and 3 provinces. They are arranged as follows, into 3 classes, proceeding in each instance from N. to S.

	square leagues.	square miles.
I. Provinces of the Western Coast	54,691	418,933
1. Province of New-California	2,125	16,278
2. Province of Old-California	7,295	55,880
3. Intendency of Sonora	19,143	146,635
4. Intendency of Guadalajara	4,612	73,628
5. Intendency of Valladolid	3,446	26,396
6. Intendency of Mexico	5,927	45,401
7. Intendency of Puebla	2,696	20,651
8. Intendency of Oaxaca	4,447	34,064
II. Provinces of the Interior	25,848	197,995
9. Province of New-Mexico	5,709	43,731
10. Intendency of Durango	16,873	129,247
11. Intendency of Zacatecas	2,355	18,039
12. Intendency of Guanajuato	911	6,878
III. Provinces of the Eastern Coast	37,539	290,613
13. Intendency of San Luis Potosi	27,821	263,109
14. Intendency of Vera Cruz	4,141	31,720
15. Intendency of Merida or Yucatan	5,077	45,784
Total	118,478	907,541

Previous to the year 1776, the country was subdivided as follows :

- | | | | |
|--|---|--|---------------------|
| I. The Kingdom of Mexico in the S comprising the intendencies of | { | Merida | S. of the Santander |
| | | Oaxaca | |
| | | Vera Cruz | |
| | | Puebla | |
| | | Mexico | |
| | | Valladolid | |
| II. Kingdom of New Galicia on the Pacific, comprising | { | Guadalajara | S. of the Santander |
| | | Zacatecas | |
| III. Province of New-Santander on the Gulf | { | These four are now included in the intendency of San Luis Potosi | |
| IV. Kingdom of New-Leon, W. of the preceding | | | |
| V. Province of Texas on the Gulf, N. of the river Nueces | | | |
| VI. Province of Cohahuila, W. of Texas and Santander | | | |
| VII. Province of New-Biscay | { | Intendency of Durango | |
| VIII. Province of Sonora | | | |
| IX. Province of New-Mexico | | | |
| X. Province of Old-California | | | |
| XI. Province of New-California | | | |

As these divisions are still recognized in the country, and by most authors, it is necessary to mention them. Two grand divisions of the viceroyalty ought also to be mentioned. The northern part of the country, and far the most extensive, is called *gobierno militar*, or military government; and is governed by two brigadier generals. The jurisdiction of one of them extends over the provinces of Sonora, New-Biscay, New-Mexico and the two Californias; and that of the other over Coahuila, Texas, and New-Santander, and the small kingdom of New-Leon. The river Santander, in lat. 23 45 N. is the southern limit of these governments on the Gulf; and the river Rosario, in lat. 22 45 N. on the Pacific. All the territory S. of these rivers, and of a line between their sources, is under the more immediate jurisdiction of the viceroy.

The other division ascertains the limits of the jurisdictions of the two audiences within the limits of the viceroyalty. The audience of Mexico has jurisdiction of all the territory S. E. of a line commencing on the Gulf, in lat. 22 30 N. 10 leagues N. of the river Tempico, passing a little S. of W. to the source of that river, along the eastern boundary of the intendency of Zacatecas, between Guanajuato and Guadalajara; and, from the E. end of lake Chapala, in a S. W. direction to the port of Guatlan, in lat. 19 45. All the country N. of this line is under the jurisdiction of the audience of Guadalajara.

Provinces.] A separate account of the larger and more remote provinces seems necessary, as they differ materially in many respects from the rest of the viceroyalty.

NEW-CALIFORNIA is in the N. W. It reaches from the bay of Todos los Santos, on the bay of All Saints, in lat. 32° N. to cape Orford, lat. 42° N. The province reaches inland only 30 or 35 miles, to the mountains of California.

San Rodriguez de Cabrillo sailed along the coast, as far as lat. 44° N. in 1542. Drake, in 1578, traversed it, from lat. 38 to 48. Two packet boats were sent, from San Blas, to explore the country, in 1763. The first colonists arrived in 1769. They were chiefly missionaries, and the settlements are all denominated missions; and are under the direction of 36 monks of St. Francis. The progress of population may be learned from the following table:

	missions.	civilized Indians.
1776	8	
1790	11	7,748
1801		13,688
1802	18	15,562

Forty years ago the natives were all wandering tribes, living by fishing and hunting. The northern part of the country is inhabited by two nations, called the Rumsen and the Escetan. Their languages are totally different from each other. The Indians farther south compose numerous tribes, and speak languages somewhat resembling the Aztec, or Mexican language.

Sans Carlos de Monterey, the capital, was founded in 1770, at the foot of the Cordillera of Santo Lucia, and has a population of 700

San Diego, 52 miles from Old California, had a population of 1560, in 1802. The number of whites, mestizocs, and mulattoes, in 1802, in the whole province, was estimated at 1300. They live at the various military establishments, and none of them are allowed to settle in the country as colonists. The Indians of the missions manufacture coarse woollen stuffs called *frisadas*; but their principal occupation is the dressing of stag skins. The climate is much more mild than in the same latitudes on the eastern coast of the continent; but the sky is often foggy. Good wines are made all along the coast, to beyond 37° N. and olives grow thrifty in the southern part of the country. The cold winds from the N. sometimes prevent the fruits from ripening. The face of the country is agreeably diversified. Savannas of considerable extent lie between the coast and the mountains. These are the abodes of flocks of stags of a gigantic size. The Indians discover great address in taking them. The soil is very fertile and well watered. Wheat, maize, and haricots are abundantly cultivated; and barley, beans, lentils and garbanzas grow plentifully in the fields. In 1791, the Indians had 24,958 beeves; and sowed only 874 fanegas of wheat, which yielded 15,197 fanegas. In 1802, they had 67,782 beeves, 107,172 sheep, 1040 hogs, 2,187 horses, and 878 mules; and they then sowed 2,089 fanegas of wheat, which yielded 33,576 fanegas.

The coast N. of cape Mendocino is called New-Albion by the English, as far as the lowest Russian settlement at Portlock harbor, between lat 58° and 59° N. and has heretofore been claimed by them. Since the year 1813 the Russians have descended the coast, and made a settlement within the limits of New-California, at Badoga, in $38\frac{1}{2}^{\circ}$ N. lat. about 50 miles N. of Port St. Francisco, the highest Spanish settlement.

OLD CALIFORNIA is the peninsula, extending from the bay of All Saints, in lat. 32° N. and 116° W. to cape St. Lucas, in lat. 22° 48' N. and lon. 110° W. The Gulf of California lies on the E. and New-California on the N. Grixalva, in the employ of Cortes discovered it to be a peninsula, in 1534. Cortes explored it, to some extent, in 1535. The Jesuits made the first solid establishments in 1742; though the village of Loretto was founded as early as 1697. Since the expulsion of the Jesuits in 1767, the missions have been confided to the Dominican monks at Mexico. The origin of the word *California* we know not.

Three nations of Indians, according to Venegas, inhabit the peninsula; the Pericues in the S.; the Monquis in the middle; and the Cochimis in the N. These three nations speak three distinct languages. The Guaycurras and Uchitis, on the E. coast of the peninsula, are Monqui tribes, speaking different dialects of that language. The Cochimis in the time of Venegas, possessed more than half of the peninsula. Some of them were also found on the opposite shore, in the province of Sonora. All these Indians have a swarthy complexion, but are comely in their forms and features. They are generally robust, vigorous, and healthy. They

paint their faces, and wear ornaments in their ears and nostrils. A very particular account of them may be seen in Venegas.

The population has diminished greatly in the last 40 years. This has been owing to the small pox, and to the syphilis. The number of missions in 1808, was only 16; and the number of cultivators of the soil about 5000. The population of Old California, according to an enumeration in 1803, was 9000. The Cochimis are still chiefly savages, and are numerous.

The village of Loretto is near the E. coast, in about lat. 26 10 N. and was founded by father Kuno in 1697. Santa Anna is another village on the same coast, in lat. 24°. San Joseph is a village near the W. coast, in lat. 26 15.

The sky is almost constantly serene and without a cloud. The temperature is mild, and sufficiently warm for most tropical fruits. A chain of mountains, called the Cordillera of California, runs through the centre of the peninsula. Its highest summit, the Cerro de Giganta, is from 4600 to 4900 feet high. The mountains E of New-California, are merely a continuation of this chain. At the foot of the mountains the soil is a mere sand on a strong stratum. This sand continues on both sides to the shores. A few spots are found covered with vegetable earth, but in most of these there is an extreme want of water. Wherever springs and earth happen to be together, the fertility of the soil is astonishing. In these spots the Jesuits planted their first missions. The peninsula can never support many inhabitants.

The pearl fishery on the eastern coast long constituted the principal value of the province. The shell, which produces the pearl, is chiefly found on the isles of Santa Cruz, San Jose, and Cerralvo, in the gulf, between lat. 24 30 and 25 30 N. The pearls are large, and of a very beautiful water, but often of an irregular figure. For some years, the produce of the fishery has been small; but the pearls are still said to be abundant. The Cordillera abounds in an animal resembling the mouflon of Sardinia.

The INTENDENCY OF SONORA reaches along the western coast more than 900 miles; from the Rio Rosario, in lat. 22 30 N. to the Colorado, which falls into the head of the gulf, in lat. 33°. Its breadth, to the 28th degree of latitude, rarely exceeds 170 miles. Beyond, it widens to 450. The northern part is called Pimeria, from the Pimas, a numerous nation of Indians. An extensive tract N. between them and the Rio Gila is still independent. No permanent communication has hitherto been opened between Sonora and New-California on the N. W. or New-Mexico on the E. The number of tributary Indians, in 1793, amounted to 2102. The tribes on the coast, near the head of the gulf, are more civilized than most independent Indians. In their manners they are mild and gentle. They plant maize, cotton, and gourds; live in regular villages; and carry on various manufactures. This is said, by Humboldt, to be the character of all the tribes between lat. 33° and 54° N. The Seris, however, on the right bank of the Ascension, are brave and warlike.

NEW-MEXICO reaches from lat. 31° to 38° , is about 500 miles long, and from 100 to 170 broad. It is a fertile territory lying along the Rio Bravo del Norte. It is thinly inhabited. The country, E. and W. of it, throughout its whole extent, is entirely unreclaimed. This province was peopled by the Spaniards towards the end of the 16th century; yet a desert tract of considerable extent, between it and the intendency of Durango, called the desert of Muerto, is still occupied by the Cumanches, who are very brave and ferocious, and render travelling, from one province to the other, unsafe. Thus the province is wholly insulated. The Indians also, to the east of the province, carry on a perpetual warfare with the inhabitants, who are compelled, on this account, to live almost wholly in the cities and towns. The Moquis are a powerful nation to the W. on the eastern branches of Colorado. Father Garces, in 1773, visited a large Moqui town, with streets well laid out, crossing each other at right angles, with two great squares, and the houses of several stories.

DURANGO, or NEW-BISCAY, lies E. of Sonora, between lat. 24° and 32° N. On the S. E. it touches for a short distance on San Luis Potosi. The Bolson de Mapimi and the Rio Bravo constitute the rest of its eastern boundary. The Bolson de Mapimi is an extensive tract occupied by the Acoclames, and Cocoymes. A tract, equally extensive, between the Puerco and the Bravo, is occupied by the Apachos-Mescaleros and Fardones. The Cumanches, and Chichimecs, occupy the desert of Muerto. The Apaches-Mjmbrenos are farther to the W. These tribes are all wild and warlike. The great table land of Mexico, or Anahuac, terminates in this intendency, declining to the N. E. towards the Bravo.

SAN LUIS DE POTOSI reaches along the coast of the Gulf of Mexico from the mouth of the Tempico, to the S. W. boundary of the United States. It has more than 800 miles of seacoast. Its breadth in the E. and also in the S. does not exceed 180 miles; but, for a length of more than 400 miles in the middle, it has a breadth of 300. The Bolson de Mapimi, and other unreclaimed regions, limit it to the W. and N. beyond the parallel of 26° . The Spaniards have no settlements E. of the Colorado.

The name of *Texas* is loosely applied to all that vast extent of country included between Red river and Rio del Norte, and bounded E. by the state of Louisiana and S. E. by the Gulf of Mexico, covering a territory of 240,000 square miles. This is the territory which has been the subject of dispute between Spain and the United States, and has recently been ceded to the former.

YUCATAN, in the S. E. is a large peninsula, between the bay of Campeachy and the bay of Honduras. A ridge of mountains runs through it from S. W. to N. E. The Spanish settlements lie W. of the mountains. The English have settlements on the eastern coast of considerable extent, in a fertile country. The greater part of this peninsula is in the intendency of Merida, or Yucatan. A small part of it in the S. E. belongs to the province of Vera Pas

in the captain-generalship of Guatemala. The boundary between the viceroyalty of Mexico and the captain-generalship of Guatemala, commences on the Pacific, at the Barre de Tomala, about 15 leagues E. from Tehuantepec; and passes to the N. E. at no great distance N. of Chiapa and Ciudad Real, till it strikes the bay of Honduras. The intendency of Merida thus comprises the northern, and far the greater part of the peninsula of Yucatan.

Names.] According to Humboldt, all the country between lat. 14° and 21° N. was called, before the Spanish conquest, *Anahuac*. The name *Mexico* was applied by the Indians only to the city, and signifies, in the *Aztec* language, *the habitation of the god of war*.

History.] The empire of Mexico was subdued by Cortez, in the year 1521. Montezuma was at that time the emperor. In the course of the war, he was treacherously taken by Cortez, and held as a prisoner. During the imprisonment of Montezuma, Cortez and his army had made repeated attacks on his subjects, but without success. Cortez was now determined, as his last resource, to try what effect the interposition of Montezuma might have to soothe or overawe his subjects. This unfortunate prince, at the mercy of the treacherous Spaniards, and reduced to the sad necessity of becoming the instrument of his own disgrace, and of the slavery of his subjects, advanced to the battlements in his royal robes, in all the pomp in which he used to appear on solemn occasions. At sight of their sovereign, whom they had long been accustomed to honor, and almost to revere as a god, the weapons dropped from their hands, every tongue was silent, all bowed their heads, and many prostrated themselves on the ground. Montezuma addressed them with every argument that could mitigate their rage, or persuade them from hostilities. When he ended his discourse, a sullen murmur of disapprobation ran through the crowd; to this succeeded reproaches and threats; their fury rising in a moment, they violently poured in whole flights of arrows and volleys of stones upon their unhappy monarch; two of the arrows struck him in his body, which, with the blow of a stone on his temple, put an end to his life. Guatimozin succeeded Montezuma, and maintained a vigorous opposition against the assaults of Cortez. But he, like his predecessor, after a noble defence, was forced to submit.

The ancestors of the Mexicans, according to their traditions, consisted of several savage tribes, who, about the 10th, or 11th century of the Christian era, moved in successive migrations from unknown regions to the N. and N. W. and settled in Anahuac.* About the beginning of the 13th century, a tribe, more polished than the rest, advanced from the borders of the Californian gulf, and took possession of the plains adjacent to the great lake, near the centre of the country.†

The peninsula of California was discovered by Cortez, in 1536, after enduring incredible hardships, and encountering dangers of almost every species. During a long period it continued to be so little frequented, that even its form was unknown, and in most maps

* Robertson.

† Clavigero.

it was represented as an island. Sir Francis Drake was the first who took possession of it, in 1578, and his right was confirmed by the principal king or chief in the whole country.

New-Mexico was discovered by a missionary, in 1581, but was not subdued till 1644. The missions were established here in 1660. The capital, Santa Fe, was founded in 1682.

The countries of Cinaloa and Sonora, on the E. side of the gulf of California, as well as the immense provinces in the north, all which are thinly inhabited, never were subject to the Mexican sceptre, but now acknowledge the power of Spain.

In 1765, a war commenced between the Spaniards and natives, which ended in 1771, in the submission of the latter.

Since the year 1811, this country has been in a revolutionary state. Many attempts have been made to throw off the yoke of the Spanish government, and make the country independent. These efforts have as yet proved ineffectual. Accounts from Vera Cruz, as late as the 7th of April, 1819, mention, that with the exception of a wandering party of revolutionists, under father Torres, of about 1500 men, the whole of the vast viceroyalty of Mexico was in a state of tranquil loyalty.

Original Population.] Various tribes originally inhabited this extensive country. Those in the centre were more civilized than those in the north and south. The origin of the Mexicans is involved in great obscurity. According to Clavigero, the ancestors of the nations which peopled *Anahuac*. (now called *New-Spain*) might pass from the northern countries of Europe into the northern parts of America, or which is more probable, from the most eastern parts of Asia, to the most western parts of America. This conclusion is founded on the constant and general tradition of those nations, which unanimously say, that their ancestors came into *Anahuac* from the countries of the north and northwest. This tradition is confirmed by the remains of many ancient edifices, built by those people in their migrations. In a journey made by the Spaniards in 1606, from New-Mexico to the river which they call *Tizon*, 600 miles from that province towards the northwest, they found there some large edifices, and met with some Indians who spoke the Mexican language, and who told them, that a few days journey from that river towards the N. was the kingdom of Tollan, and many other inhabited places, whence the Mexicans migrated. In fact, the whole people of *Anahuac* have usually affirmed, that towards the N. were the kingdoms and provinces of Tollan, Aztlan, Copalla, and several others, which have all Mexican names. Boturini says, that in the ancient painting of the Toltecas was represented the migration of their ancestors through Asia and the northern countries of America, until they established themselves in the country of Tollan; and even endeavors to ascertain, in his general history, the route they pursued in their travels.

Religion.] The church of Mexico is placed under the care of an archbishop, whose appropriate diocese is the intendency of Mexico, and 8 bishops. The following is a list of the dioceses, and the stated revenue of each :

	double piastres.		double piastres.
Mexico	130,000	Monteroy	30,000
Puebla	110,000	Yucatan	20,000
Valladolid	100,000	Oaxaca	18,000
Guadalaxara	50,000	Sonora	6,000
Durango	35,000		

Total 539,000*

The number of Mexican clergy is about 10,000, the half of whom are regulars, who wear the cowl. If lay brothers and sisters or servants are included, they may all be estimated at 13,000 or 14,000. The lands of the Mexican clergy amount to 500,000*l.* or 600,000*l.* sterling; and the capitals of the religious communities, secured on mortgage, to 44,500,000 double piastres.

Government.] The jurisdiction of the viceroy extends over the whole country, but is more immediately confined to the southern Intendencies. The limits of the jurisdictions of the two audiences have already been stated; as have those of the two brigadier generals in the north. The intendencies are each committed to an intendant. The provinces of New-Mexico and the two Californias have no intendants, and are left to the immediate management of the missionaries.

Population.] Only one census has ever been taken of the inhabitants of this viceroyalty. This was under the administration of count Revillagigedo, in 1793. Like similar enumerations, in the other Spanish colonies, it fell far short of the truth: Humboldt says at least one sixth. The following table contains the result of the census of 1793; also Humboldt's estimate of the population in 1803, founded on that census, on the known omissions, for which only one tenth is allowed, and on the natural increase, calculated from the proportion between the number of births and deaths:

Intendencies.	1793.	1803.	Principal towns.	Inhab. in 1803.
New-California } Old-California }	12,666	15,600 9,000	Monteroy Loretto	700
Sonora	93,396	121,400	Culiacan	10,800
New-Mexico	30,953	40,200	Taos	8,900
Durango	122,866	159,700	Durango	12,000
San Luis Potosi	255,280	334,900	San Luis Potosi	12,000
Zacatecas	118,027	153,300	Zacatecas	33,000
Guadalaxara	485,000	630,500	Guadalaxara	19,500
Valladolid	289,514	376,400	Valladolid	18,000
Guanaxuato	397,924	517,300	Guanaxuato	70,600
Mexico	1,162,886	1,511,800	Mexico	137,000
Puebla	625,620	813,300	Puebla	67,800
Vera Cruz	120,000	156,000	Vera Cruz	16,000
Oaxaca	411,366	534,800	Oaxaca	24,000
Merida	358,261	465,800	Merida	10,000
Total	4,483,529	5,840,000		

* 112,500*l.* sterling.

Grounding his calculations on the excess of births over deaths, Humboldt supposes the population in 1808, exceeded 6,500,000. The great mass of this population is in the southern provinces. The provinces north of the parallel of 25° contain about two thirds of the territory, and only one tenth of the population. The provinces south of that parallel, have, on an average, 20 inhabitants for every square mile.

Revenue.] Mexico, according to Dr. Robertson, yields to Spain a revenue, including expenses, which are great, of 1,000,000*l.* ster*l.* More recent accounts state the whole revenue derived by Spain, from America and the Philippine isles, at 2,700,000*l.* ster*l.* The king's fifth of the mines of New-Spain have been stated at 2,000,000*l.* but this is probably exaggerated.

Manners.] Of the ancient inhabitants of this country Dr. Robertson has given us the following character. "When compared with other parts of the new world, Mexico and Peru may be considered as polished states. Instead of small, independent, hostile tribes, struggling for subsistence amidst woods and marshes, strangers to industry and arts, unacquainted with subordination, and almost without the appearance of regular government, we find countries of great extent, subjected to the dominion of one sovereign, the inhabitants collected together in cities, the wisdom and foresight of rulers employed in providing for the maintenance and security of the people, the empire of laws in some measure established, the authority of religion recognized, many of the arts essential to life brought to some degree of maturity, and the dawn of such as are ornamental, beginning to appear."

Of the modern manners of this mixed people, no traveller or historian has given us much authentic information.

Languages.] The number of native languages exceeds 20. Of these 14 have grammars and dictionaries tolerably complete.— Their names are the *Aztec* or proper *Mexican*, the *Otomite*, the *Taras*, the *Zapotec*, the *Miatec*, the *Maye*, or *Yucatan*, the *Totonac*, the *Popolouc*, the *Matlazing*, the *Huastec*, the *Mixed*, the *Caquiquel*, the *Taraumar*, the *Tepchuan*, and the *Cora*. Humboldt says that most of these languages are as different as the Greek and German, or the French and Polish. This is the case with at least 7. The *Aztec*, of which there exist 11 printed grammars, is at present most widely diffused, and extends from lake Nicaragua, in Guatemala, to lat 37° N. more than 400 marine leagues. The *Otomite*, next to this is the most extensive.

Literature.] In the Spanish settlements are a number of valuable institutions for the education of the aborigines. There are also several colleges and universities, but the fanatical and sectarian spirit of their instructors renders them of little value.

Cities and Towns.] Mexico, the largest town in Spanish America, is situated in the valley of Mexico, in lat. $19^{\circ} 25' 45''$ N. and lon. $99^{\circ} 5' 30''$ W. The centre of the town is nearly 3 miles W. of the shore of lake Tezcucó. Humboldt dates its foundation in 1325. The streets run nearly from N. to S. and from E. to W. and are long, broad, and regular. Most of them are paved, and all are clean and

well lighted. The site of the town is almost an uniform level; and it forms a great square, of which each side is about 3000 yards. The architecture is of a very pure style, and some of the edifices are beautiful. The exterior of the houses is not loaded with ornaments. Instead of roofs they have terraces; and the balustrades are all of Biscay iron. The objects here, particularly calculated to strike a traveller's attention, are the cathedral; the treasury; the convents, of which 23 are monasteries, and 15 nunneries; the hospital, which maintains 1400 paupers, with a revenue of 10,470*l.* sterling; the *acordada*, a collection of prisons; the school of mines, with its collections in physics, mechanics, and mineralogy; the university and public library, the buildings of which are unworthy so ancient an establishment; the academy of fine arts; and the large equestrian statue of Charles IV. The census of 1790, gave a population of 112,926, but fell considerably short of the actual number. Humboldt estimated it at 137,000, consisting of 2500 Europeans, 65,000 creoles, 33,000 Indians, 26,500 *mestizoes*, and 10,000 *mulattoes*. The market is richly supplied. Most of the vegetables sold in it, are raised on the floating gardens, in the lake of Tezcuco. The city is supplied with water by two aqueducts. That of Shapohtepec is more than 2 miles long, and enters the city on the S. That of Santa Fe is more than 6 miles in length, and is far the purest.

PUEBLA stands in lat. 19° N. and lon. 98° W. in the plain of Acaxete, at an elevation of 7380 feet above the level of the ocean. Its population, according to Humboldt's estimate, is 67,800. It is about 30 leagues E. S. E. of Mexico.

GUANAXUATO was founded in 1554, and stands about 50 leagues N. W. of Mexico. Its elevation is 6836 feet above the ocean. The population, according to Humboldt, is 41,000 within the city, and 29,600 in the mines surrounding it, of whom 4500 are Indians: total 70,600.

ZACATECAS lies more than 100 leagues N. N. W. of Mexico, and contains according to Humboldt, 33,000 inhabitants.

OAXACA lies near the E. bank of the Rio Verde, about 80 leagues S. S. E. of Mexico, and contains 24,000 inhabitants.

ACAPULCO is on the Pacific, in lat. 16 50 20 N. and in lon. 99 46 W. Its port is the best on the western coast. The town was formerly large and populous, while the trade by the galleons continued. Its steady population does not now exceed 4000, and they are chiefly *mulattoes*. The place is extremely unhealthy.

VERA CRUZ is on the gulf of Mexico, in lat. 19 11 52 N. and lon. 96 9 W. The city is beautifully and regularly built, and inhabited by well informed merchants. It stands in an arid plain, destitute of running water; on which N. winds, that blow impetuously from October till April, have formed hills of moving sand. The continued population is about 16,000. The fortress of San Juan de Uloa, is on an island near the town.

MONTREY, the capital of the two Californias, and the residence of their governor, is a mere hamlet, with a dangerous harbor. It was founded in 1770. Population 700.

Santa Fe is remarkable as the most northern town of any note in New-Mexico. It is in lat. $36^{\circ} 30'$ N. on the east bank of the Rio Bravo del Norte, about 1000 miles N. W. of New-Orleans. Population 3,600.

Roads.] There is a road from Mexico to New-Orleans. The whole distance is 1549 miles. The distance from Mexico to Sabine river, the boundary of the United States, on this road is 1148 miles.

A carriage may pass from Chihuahua, in lat. $28^{\circ} 45'$, to Santa Fe, in lat. $36^{\circ} 15'$. A sort of calèche is generally used. The road is beautiful and level, and passes along the eastern bank of the Bravo, crossing it at the Passo del Norte. The banks of the river are very picturesque, and are adorned with beautiful poplars and other trees peculiar to the temperate zone.

Couriers go on horseback from Guatemala, in lat. $14^{\circ} 28'$ N. to Mexico, and thence, through Guadalajara, to Santa Cruz, at the mouth of the Mayo, on the gulf of California, in lat. $27^{\circ} 40'$. Here he crosses the gulf, and disembarks at Loretto. From this village letters are sent from mission to mission, to Monteroy and Port St. Francis, the highest Spanish settlements on the Pacific. They thus traverse a route of more than 920 geographical leagues, or 3100 miles; equal to the distance of Lisbon from Cherson.

Manufactures and Commerce.] "Mexico is singularly distinguished by the multitude and variety of its productions, in all the three reigns of nature, animal, vegetable, and mineral. This abundance of natural productions perhaps contributes to the neglect of manufactures. Even metallurgy is but poorly conducted. Cochineal and cocoa,* with a little silk and cotton, form articles of export; but the chief are gold, silver, and precious stones. There was a celebrated fair at Acapulco, on the annual arrival of the ships from Peru and Chili, after which the noted galleon, laden with the wealth of America, pursued her course to Manilla. Other arrangements are now followed, and smaller vessels employed. The galleons were laid aside in 1748; and commercial regulations were instituted on a more liberal plan. In 1764, monthly packets were established between Corunna and Havanna, whence smaller vessels pass to Vera Cruz, and to Porto Bello, in S. America; and an interchange of productions by these vessels is also permitted. In the following year the trade to Cuba was laid open to all Spain; and the privilege was afterwards extended to Louisiana and the provinces of Yucatan and Campeachy. In 1774, free intercourse was permitted between the three viceroyalties of Mexico, Peru, and New-Granada. By a strange policy a free trade is permitted between New-Spain and the Philippines, which adds considerably to the wealth of the former country. The English trade in the bay of Honduras may now be considered as terminated, the logwood on the opposite side of Yucatan being found to be of superior quality."†

There are several vessels from the United States every year, which visit the coast of California, and obtain from the natives, land and sea otter skins, and other furs.

* Chocolate is said to have been a Mexican liquor, and the best nuts are those of Guatemala.

† Pinkerton.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE, FACE OF THE COUNTRY, SOIL AND AGRICULTURE,
RIVERS, LAKES, MOUNTAINS, BOTANY, MINERALOGY.

Climate.] ONLY two seasons are known in the tropical regions of Mexico, even as far as lat. 28° N.; the rainy season of four months, which commences in June or July, and ends in September, or October; and the dry season of eight months, which lasts from October to May. The first rains commence on the eastern coast, and are accompanied with strong electrical explosions. They begin at Vera Cruz 15 or 20 days sooner than on the central table land; and there, sooner than on the Pacific. The most rains fall on the highlands. The low plains only, on the coast possess a warm climate, adapted to all the productions of the West-Indies. The mean temperature of these regions, which the Spaniards call *Tierras Calientes*, is 77° of Fahrenheit. The climate here is unhealthy to Europeans, who perish in great numbers by the yellow fever. Cold winds occasionally prevail, however, on the eastern coast, from October to March; and frequently cool the air at Vera Cruz to 60° . The peninsula of Yucatan, though one of the warmest, is one of the healthiest districts in equinoctial America. This is owing to the extreme dryness of its air. On the declivity of the Cordillera, at the elevation of 4000 or 5000 feet, there reigns perpetually a soft spring temperature, which never varies more than 8 or 9 degrees. This is called the *Tierras Templadas*, and the mercury here usually stands at 68 or 70. This region is extremely salubrious, but is often enveloped in thick fogs. At the elevation of about 7000 feet, commences another zone, called *Tierras Frias*; the mean temperature of which is about 60° . Mexico is in this region, and the thermometer has there been known in a few instances, to descend below the freezing point. In the coldest season, the mean heat of the day, in this region, is from 55° to 56° . In summer, the thermometer never rises above 75° . The mean temperature of the whole table land of Mexico is 62° . There are some plains in the table land elevated still higher. Thus the plains of Toluca and Guchilaque, exceed 8000 feet in height. Here, during a great part of the day, the mercury does not rise above 45° or 46° .

Face of the Country.] The lands on both coasts, are low grounds, intersected with very inconsiderable hills. In the south, these tracts are narrow, but wider on the west, than on the east. Farther north, near the borders of San Luis Potosi and Guadalajara, the low country widens; and above the parallel of lat. 24° is of very considerable breadth. Merida, or the peninsula of Yucatan, is chiefly of this description; however, a chain of hills of small elevation intersects it

from S. W. to N. E. The whole of Vera Cruz is level, and all of it low, except the high plain between Perote and the Pic d'Orizaba. San Luis Potosi, consists almost universally of plains of small elevation. In Guadalupe and Sonora on the W. there is also a broad tract of low ground between the sea and the mountains. In Old California the level land is narrow on both coasts; and New-California is only a narrow plain W. of the mountains.

The Cordillera in Mexico does not, like most other ranges of mountains, consist of a narrow ridge, or of several such ridges parallel with each other, with vallies between them; but it is many leagues in breadth, and the top is a broad plain, or table land from 6000 to 8000 or 9000 feet above the level of the ocean. Humboldt has given us in his travels three perpendicular sections of the table land of Mexico. These are undoubtedly drawn with great accuracy, being the result of barometrical observations in 208 different places. One section is of the country from Mexico to Vera Cruz, a distance in a direct line of 296 miles, and almost due E. and W. For 14 miles from Vera Cruz, the country is nearly a perfect level to La Antigua. There it begins to ascend very gradually, and in 24 miles gains an elevation of 1000 feet. The ascent there becomes very rapid, and continues so during the next 45 miles, where the elevation is 7800 feet. This is a little above the common level of the road. The elevation is, however, every where above 7000 feet, and varies but little from a level, except at El Pinal, as far as St. Martin's. There the land suddenly rises to the height of 8200 feet, and thence continues a plain for 15 miles to Tescamahuos. Here commences an ascent over the highest hill on the road. In a level distance of about 15 miles the surface gains the height of 10,380 feet. Thence the descent is rapid; and at Chalco, 15 horizontal miles farther, the elevation of the road is only 7,640 feet. From Chalco to Mexico, a distance of 20 miles, there is an almost imperceptible descent. The elevation of Mexico is about 7400 feet.

Another section is of the central table land, from La Cruz, in lat. 9° to Monte del Gigante, in 21° N.; passing through the capital. In this distance, the elevation nowhere sinks below 6000 feet, and except three places, La Cruz, Monte del Calpulalpani, and Monte del Gigante, above the level of the capital.

A third section exhibits the elevation of the road from Mexico to Acapulco. The distance in a straight line, is 254 miles, and the direction S. 14° W. From Mexico to La Cruz, a horizontal distance of 23 miles, the road constantly ascends, and the height of that town is 9,735 feet. Guchilaque, 10 horizontal miles farther, is 7,935; and Cuernavaca, only 7 miles farther, is but 5,377. Thence there is a gradual descent, for 77 such miles, to Mescala, which is but 1680 feet above the level of the ocean. Here the road again rises, and at Chilpasingo, attains an elevation of 4,480. Thence it descends, but with some interruptions, to the valley of Papagayo, where it is only 620 feet high, and a little beyond, in the valley of Peregrino, is but 520; though between these, it passes over a sharp pitch more than 1100 feet high. Beyond the valley of Peregrino it attains an elevation of 1,450 feet, and continues nearly of this height

about 20 miles. A little beyond Exido, commences a steep descent, which, in a horizontal distance of 8 miles, reaches the level of Acapulco. Much the greater part of the road between Mexico and Acapulco is elevated but little more than 3000 feet above the level of the ocean; while that between Mexico and Vera Cruz is, almost the whole distance, about 7500. Notwithstanding this, Mexico is nearly in the centre of the table land; and this difference, in the general elevation of the two roads, is owing merely to the difference of their direction.

The table land commences in the eastern part of Oaxaca, and passes in a N. W. direction, through the centre of the country; gradually descending in the intendency of Durango, to the level of the valley of the Bravo. The city of Durango is 6560 feet high.

The valley of Mexico is about 230 miles in circumference, and has an elevation of about 7400 feet. The lake of Tezcuco is nearly in its centre. The length of the valley, from the southern shore of lake Chalco, in a N. W. direction to the Cerro de Sipcoque, is 65 miles; and its breadth 43. The mountains which surround it are of considerable elevation above it. Many such vallies, but generally of a smaller size, are found scattered over the top of the table land.

[*Soil and Agriculture.*] The soil of the table land is remarkably productive. Though exposed to droughts in the spring, its annual produce exceeds that of most countries on the globe. A severe drought however almost destroys the fruits of the earth. Maize is far the most important object of agriculture, and the year in which the maize harvest fails, is a year of famine for Mexico. This plant was received by the old continent from the new, and in the Mexican language was called thaolli; and in the Arrowauk, mahiz. It grows on all the table land, except some of the highest plains, and acquires a height of from 6 to 10 feet. The rich plain between San Juan del Rio and Queretaro, yields 800 fold; and fertile lands generally from 300 to 400. Humboldt estimates the common produce at 150 fold. In the most warm and humid regions it will yield from 2 to 3 harvests annually, but generally only 1 is taken. It is planted from the middle of June, to the end of August. The common annual produce of the whole of Mexico, is estimated by Humboldt at 17 million fanegas, or 1765½ million pounds, avoirdupois. The Indians make out of maize a spiritous drink, called Chica. Before the conquest, they pressed out the juice of the stalk for sugar. Wheat, rye, and barley are extensively cultivated. Humboldt estimates the produce in the equinoctial region at 24 for 1. In this region, however, these grains, though they grow vigorously, do not produce the ear, at a less elevation of the land, than 2600, or 3000 feet. Rye and barley are cultivated in the highest regions. The best climate for wheat, is found to be the annual average of 64 or 65°. Humboldt estimates the common wheat harvest at 220½ millions of pounds, avoirdupois. Oats are very little cultivated. The banana of Mexico, called the

platano-arten, probably yields more nutriment on a given spot of ground, than any other vegetable. In the best lands, the fruit grows sometimes from 11 to 12 inches in length, and often from 8 to 9. In such soils, a cluster of bananas will contain from 160 to 180 fruits, weighing from 60 to 90 pounds. The plant is cultivated by suckers. In 8 or 9 months, the clusters begin to develope, and the fruit may be collected in the 10th or 11th. After the fruit is plucked, the old stalk is removed, and a new one springs up spontaneously. A spot of ground of 100 square metres, (1076 square feet) may contain from 30 to 40 plants. In one year the produce will exceed 4400 pounds of fruit.

Two species of the *yuca* (out of whose root the *maniac* bread is made) are cultivated, the *sweet* and the *bitter*; but they will not grow at a greater height than 2000 or 2500 feet above the level of the ocean. This bread is remarkably nutritive. The *yuca* is cultivated like the potato, and is ripe in 8 months.

The Mexicans now possess all the garden stuffs and fruits of Europe. Onions, leeks, garlic, harricots, cresses, and artichokes, were indigenous. The central table land produces in the greatest abundance, cherries, prunes, peaches, apricots, figs, grapes, melons, apples, and pears. The fine native fruits are the anana or pine apple, tasconia, or sapote, mameis, guava, chilimoya, and anona.

[*Rivers.*] The Rio Bravo del Norte, has heretofore been described, but its length is incorrectly stated. Humboldt says, that it is 512 marine leagues; or 1792 miles. It has its annual freshets like the Mississippi. The waters begin to swell in April, are at their height in May, and fall towards the end of June. The *Passo del Norte* is a village planted at the place, where the road from Chihuahua to Santa Fe intersects the Bravo. In 1752, the whole bed of the river, for more than 30 leagues above, and 20 below the Passo, became suddenly dry. The water precipitated itself into a newly formed chasm, and reappeared near San Eleazario. After a lapse of several weeks, it resumed its ancient course. The Choncos is a large branch from the W. running, according to the map of Humboldt, about 400 miles, and emptying at the Presidio del Norte, in lat. 30 30 N. The Puerco is somewhat longer, and flows nearly parallel with the Bravo, emptying in lat. 30. Its waters are remarkably muddy.

The Colorado of California has also been described. The Gila, its largest tributary, rises, according to Humboldt's map, in the Cordillera; and runs a little S. of W. about 600 miles, falling into the Colorado near its mouth.

The other Colorado is but little known. It is a long and large river, running probably about 700 or 800 miles in an E. or S. direction, and emptying into the N. W. corner of the Gulf of Mexico, in lat. 29 15 N.

The Rio de las Nueces is a large stream N. E. of the Bravo, and parallel with it.

The river Tula, or Montezuma, under the name of Guautillan, rises in the Cordillera, which skirts the valley of Mexico on the W. It runs in the valley about 30 miles; the first 20 in a N. E. and the last 10 in a N. N. W. direction. Just at the bend, it passes about a mile W. of lake Zumpango, and leaves the valley at the N. W. corner, passing between the Cerro de Sincoque, on the W. and the Loma of Nochistongo, on the E. Continuing the same course to lat. 20, it there bends a little to the E.; and at length, being joined by the Panuco, takes the name of Rio Tempico. It is the largest river of the eastern coast S. of the Bravo.

The river Santiabo issues from the little lake of Lorma, 20 miles S. W. of Mexico without the valley, and at the foot of the range that skirts it on the W. After a course of 250 miles, in which it is called Rio Larma, it enters the E. end of lake Chapala. This it leaves again on the N. side, at the distance of about 30 miles from its entrance; and taking the name of Rio Santiago, runs W. N. W. and S. W. about 400 miles farther. It enters the Pacific by a broad mouth in lat. 21 30 N.

The Zacatula is a stream of considerable length in the intendency of Mexico. The Culiacan, Mayo, and Hiaqui are the larger rivers of Sonora.

Lakes.] Lake Chapala is far the largest in Mexico. It lies W. by N. of the capital, just above the latitude of 20°; covering, according to Humboldt, nearly 160 square marine leagues, or 1,225 square miles; and, by his map, is about 90 miles long, and 20 broad.

There are four lakes in the valley of Mexico. The lake of Chalco, at the southern extremity of the valley, covers 50 square miles. The body of the lake is separated by a dike from a long narrow arm at the N. W. called the lake of Xochimilco. The water of the lake has no outlet, and its surface is 39 inches higher than the Plaza Mayor of the capital, from which the extremity of Xochimilco is not above 4½ miles distant.

The lake of Tezcuco, as well as the other three, was formerly much larger than it is at present. It lies N. of the Chalco, about 4 miles from it; and is 14 miles long from S. S. W. to N. N. E. and 8 broad, containing 77 square miles. Its actual bounds are not very well determined; the soil being so argillaceous and smooth, that the difference of level in the shore for a mile is not more than 8 inches. When the E. wind blows with any violence, the water withdraws towards the western bank, leaving an extent of more than 3 furlongs dry. The Plaza Mayor, at the S. corner of the viceroy's palace, is only 4 feet above the level of the lake. In general the water is only from 9 to 16 feet deep, and in some places less than 3. It contains muriat and carbonat of soda. The floating gardens on its surface are probably the most elegant exertion of horticulture.

The lake of San Christoval lies less than a mile N. N. W. of Tezcuco, and covers 27½ square miles. Its length from N. to S. is 10 miles. Its surface is 11 feet 8 inches above lake Tezcuco.

Lake Zumpango, N. W. of San Christoval, and 3 miles from it, covers a surface of 10 square miles, and is 29 feet higher than Tez-

cuco. The Rio Guautillan, the present source of the Montezuma, formerly emptied into this lake, but to prevent inundations, its course was diverted out of the valley. The city of Mexico formerly suffered severely from the rising of the water in these lakes. In 1446, it was completely inundated. To prevent a similar evil, Montezuma I. a short time after, ordered a dike to be constructed of stones and clay, supported on each side by a range of palisadoes. This dike was about 70 miles in length, and 65 feet broad. Five great inundations have happened since the arrival of the Spaniards. In each of these, the Zumpango, swelled by the Rio Guautillan, flowed over into the San Christoval. The San Christoval thus enlarged, broke down the dike that separated it from the Tezcucos; and the Tezcucos flowed with impetuosity into the streets of Mexico. After the fourth inundation, in 1607, Henry Martinez, an able engineer, was employed by the viceroy to prevent a repetition of the calamity. Martinez proposed to turn the waters of Rio Guautillan and the lake Zumpango out of the valley. On the 28th of November, 1607, a subterraneous gallery was begun under the gap of the Cordillera, on the N. W. corner of the valley. Fifteen thousand Indians were employed at the work, and in eleven months it was completed. It was more than 4 miles long, $11\frac{1}{2}$ feet broad, and $13\frac{1}{2}$ high; and passed under the gap between the two hills the Cerro de Sincoque, and the Loma of Nochistongo. The earth was soon found to cave, and obstruct the passage of the water. To prevent this, the gallery was first planked, and then lined with solid mason-work. Both were found insufficient. In 1629, an inundation commenced, which lasted 5 years, and during the whole of that time, the streets of the capital were passed in boats. An attempt was then made to open the gallery. Immense expense was laid out, and the work long lingered. Various schemes were successively adopted. At length an open drain was completed, in 1789, called the *Desaguedaro* or *Drain of Huehuetoca*. The whole length of the drain, from lake Zumpango, to the spot where it joins the Montezuma outside of the valley, is 67,535 feet, or more than $12\frac{1}{4}$ miles. The breadth of the cut through the gap, at the top, is from 280 to 360 feet; while that of the mere water course at the bottom is only from 11 to 13 feet. The depth of the cut, for more than $2\frac{1}{2}$ miles, is from 100 to 130 feet; and, for more than half a mile, from 150 to 200.

Another drain has been opened, more than 8 miles in length, from lake Christoval to the drain of Huehuetoca. A third was begun in 1804, from lake Tezcucos to the same drain; which, when finished, will be 104,660 feet, or more than $19\frac{1}{4}$ miles in length. To make it of any use, the drain of Huehuetoca will have to be deepened considerably, for more than 6 miles.

The lake of Pascuaro is in the intendency of Valladolid, and is a most beautiful sheet of water, affording several delightful situations for towns. The lakes of Mexitlan and Parras are in Durango. The former is the largest in the viceroyalty, except Chapala.

Mountains.] An account of the Mexican mountains has already been given.*

Botany.] The botany of this country is promised to the public by Humboldt in a separate work. The number of the Mexican plants is prodigiously great.

Mineralogy.] The most considerable metallic wealth of Mexico is found in the four intendencies of Guanaxuato, Zacatecas, Durango, and San Luis Potosi, between lat. 21 and 25 N. In Skinner's account of Peru, we are informed, that the produce of the Mexican gold mines, in 1790, was 5024 marks of gold, at \$125 the mark; and 2,179,435 marks of silver, at \$8 the mark. These sums were actually coined at Mexico, and amounted to \$628,000 in gold; and to 17,435,640 in silver: total \$18,063,640.

CAPTAINGENERALSHIP OF GUATEMALA.

EXTENT, BOUNDARIES, DIVISIONS, GOVERNMENT, POPULATION, TOWNS, PRODUCTIONS, RIVER, LAKES, &c.

Extent.] THIS country, the most southern in N. America, reaches on the Pacific from the Barra de Tomala, in lat. 16 12 N. and lon. 94 15 W. to Punta Gorda, in about lat. 9° N. and lon. 83° 20' W. and, on the gulf of Mexico, from the southern limit of the province of Merida, to the mouth of Rio Doradas, in about 10° N. Its length, along the Pacific, is about 770 miles. Its greatest breadth, across the country of Honduras, is 380; but, at each end it is much narrower.

Boundaries.] On the N. lie the province of Merida, in Mexico, and the bay of Honduras; on the E. the Caribbean sea; on the S. E. the province of Veragua, in New-Granada; on the S. W. the Pacific; and on the N. W. the province of Oaxaco, in Mexico.

Divisions.] This country is divided into the following provinces:

Chiapa	Honduras
Vera Pas	Nicaragua
Guatemala	Costa Rica

Government.] It is governed by its own captaingeneral and audience, both of whom reside at Guatemala.

Population.] It is said to be the most populous country in Spanish America; but we have seen no estimate of its actual population. The English have a settlement at Honduras, on the N. coast, containing, according to Captain Henderson, 200 whites, 500 mulattoes and free blacks, and 3000 slaves. The Indians in Honduras are still very numerous. The coast south of the English settlement at Honduras, for 1000 or 1200 miles, is called the Mosquito shore, and is inhabited by the *Mosquito* Indians. These Indians are strongly attached to the English. Their king has been educated at the expense of the British government, and is nominally a christian. At his coron-

ation, which recently took place at Honduras, he solemnly promised, in presence of his chieftains, that he would maintain the laws of God, and endeavour to promote the Christian religion among his people, and would patronise any missionary efforts that might be made in his kingdom. The Church Missionary Society in England, have in contemplation the establishment of a mission among these Indians.*

The *Mosquito* Indians it is said can muster from 1500 to 2000 warriors. The *Poyers* and *Towkcas*, are more numerous, brave and warlike than the Mosquitoes, but still tributary to them. This is owing to the superior civilization of the latter.

Towns.] GUATEMALA is the capital. It stands on the river Vacus, near the Barra d' Istapa. Lat. 14° N lon. 91 30 W. It is a large town, containing a university and numerous convents and churches. It is an archbishopric. Population, about 40,000.

The ancient capital city of this name, or St. Jago de Guatemala, stood in a valley intersected by a river, between two burning mountains. In 1541, the city was ruined by a dreadful tempest. It was rebuilt at a distance from the volcanoes, and became very populous and rich, the third in rank in Spanish America. In 1773, it was swallowed up by an earthquake, and 8000 families instantly perished.

LEON, the capital of Nicaragua, stands on the W. side of the lake of Leon. Population, about 12,000.

CIVDAD REAL is in the province of Chiapa. It is delightfully situated in a plain surrounded with mountains, and almost equidistant from the two oceans. It contains a noble cathedral, 3 monasteries, and 1 nunnery. Population, about 3,000.

CHIAPA DE LOS INDIOS is the largest Indian town in Guatemala. It lies W. of Ciudad Real, and has about 20,000 Indian inhabitants. The number of whites is small. Bartholomew de las Casas, the celebrated apostle of the Indians, was the first bishop of Chiapa. The town contains numerous cloisters and churches. The English settlement at Honduras, on the northern coast, in about lat. 16° N. was recently distinguished for licentiousness. Within a few years, however, a church has been erected, two free schools on the Madras system have been established, and provision has been made for the education and religious instruction of the negro slaves, and their children. A respect is now generally paid to the sabbath; the morals of the place have been much improved; and there is good reason to hope that Honduras may become a depot both for the scriptures and missionaries; and that the light of the gospel may be diffused from it, among the Indian tribes, which almost encompass it.

Productions.] This country produces great quantities of chocolate, cochineal, cotton, indigo, honey, some balsam, and woad. The merchandise of this province is generally conveyed to the port of St. Thomas, in the bay of Honduras, to be sent to Europe.

River, Lakes, &c.] The river Chiapa is a considerable stream, emptying into the bay of Campeachy. The lakes of Nicaragua and

* Missionary Register for October, 1817.

Leon have heretofore been described. The Rio St. Juan is the outlet of the former. The Andes of Guatemala resemble those of Peru. They are jagged with volcanic cones, and form a steep, narrow, and lotty ridge, which runs throughout the captaingeneralship along the western coast.

The very scanty information we have been able to procure respecting this province, would not have induced us to give it a *separate* consideration, had not the silence of former geographers given currency to the opinion, that Guatemala was an integral part of Mexico. But it is as distinct as Chili from Peru, or as Venezuela from New-Granada.

WEST-INDIES.

SITUATION, DIVISIONS, NAMES, DISCOVERIES, ORIGINAL POPULATION, BUCCANEERS, RELIGION, GOVERNMENT, POSSESSORS, INHABITANTS, CLIMATE AND SEASONS, AGRICULTURE.

Situation.] THE islands, which have received this name, lie between lat. 9 30 and 28° N. and between lon. 59 30 and 85 20 W. Trinidad is at the southern extremity, Barbadoes at the eastern, Marinilla Reef at the northern, and Cuba at the western.

Divisions.] They are divided into 4 principal groupes.

I. *The Bahamas, or Lucayas Islands.*

These consist of a great number of *keys*, or rocks, and of 14 principal islands, or groupes of islands.

- | | |
|-------------------------|--------------------|
| 1 Turk's Islands | 8 Watling's Island |
| 2 Caicos | 9 Guanahani |
| 3 Inaguas | 10 Eleuthera |
| 4 Mayaguana | 11 New-Providence |
| 5 Crooked Island Groupe | 12 Andros |
| 6 Long Island | 13 Abaco |
| 7 Excuma | 14 Great Bahama |

II. *The Greater Antilles.*

- | | |
|--------------|--------------|
| 1 Cuba | 3 Jamaica |
| 2 Hispaniola | 4 Porto Rico |

III. *The Caribbean Islands.*1. *The Leeward Islands.*

- | | | | |
|-------------------|---|----------------|-------------------|
| 1 Virgin Islands | { | 1 St. Thomas | 7 St. Eustatius |
| | | 2 St. John | 8 St. Christopher |
| | | 3 Tortola | 9 Nevis |
| | | 4 Virgin Gorda | 10 Antigua |
| | | 5 Santa Cruz | 11 Monserrat |
| 2 Anguilla | | 12 Deseada | |
| 3 St. Martin | | 13 Guadaloupe | |
| 4 St. Bartholomew | | 14 Marigalante | |
| 5 Saba | | 15 Dominica | |
| 6 Barbuda | | | |

2. *Windward Islands.*

- | | |
|---------------|------------|
| 1 Martinico | 5 Grenada |
| 2 St. Lucia | 6 Tobago |
| 3 St. Vincent | 7 Trinidad |
| 4 Barbadoes | |

IV. *The Lesser Antilles.*

- | | |
|-------------|-----------------------|
| 1 Margarita | 4 Bonair, or Buenaire |
| 2 Tortuga | 5 Curacoa |
| 3 Orchilla | 6 Aruba. |

Names.] The chief object which Columbus had in view, in his first voyage, was the discovery of a western passage to India. When he reached these islands he supposed that he had arrived there; grounding his supposition on the opinion of the ancients, that the country of the *Seres* or *Sinae*, (China) the most eastern part of their *India*, was 225 degrees of longitude E. of the first meridian, or that of the *Fortunate* or Canary islands. If this opinion had been correct, the country of the *Seres* would have been only 135 degrees W. of the Canary islands; and Columbus after the fatigues and perils of a long and untried voyage, at a period when scarcely any thing was known respecting the longitude, is certainly excusable for imagining that he had arrived at this India; although the island of Guanahani, on which he first landed, is, in fact, but little more than 60 degrees W. of the Canaries. After the discovery of India by Vasco de Gama, in 1498, by an eastern course; the India of the ancients and the neighboring islands received the name of the *East-Indies*; and the India of Columbus, that of the *West-Indies*. The continent, as well as the islands, was early called by this name; and the supreme council of Spain, which regulates the concerns of all her American possessions, has always been called the *council of the Indies*.

The islands, called by the English *The Bahamas*, are styled *The Lucayas* by the Spaniards. *Bahama* and *Lucaya* are the native names of two of the largest islands in the groupe. The former is the most generally adopted; the latter appears to have been the

native name of the whole groupe, for the inhabitants of all were called *Lucayans*.

The Spanish geographers gave the name of *Antilles* or *Antillia* to the newly discovered islands, immediately after the return of Columbus from his first voyage: a name, according to Charlevoix, of an imaginary country, which had long been placed, in the ancient charts, about 200 leagues W. of the Azores. They did this to rob Columbus of his well earned glory.

Columbus named the *Caribbean* islands after the *Caraibes* or *Caribbees*, the Indians who occupied them when they were discovered. The English sailors give the names of *Windward* and *Leeward* islands to the two divisions of this groupe, in consequence of their relative situation with regard to the trade winds. The Spaniards however, give the former name to all the Caribbean islands, and the latter to the Greater Antilles.

The *Lesser Antilles* received their name, not of right, but of necessity, as no other had been given to the groupe.

Discoveries.] It is sufficient to state here, generally, that Columbus discovered the Bahamas and Greater Antilles, in his first voyage, the Caribbean isles in his second, and the Lesser Antilles in his third.

Original Population.] The *Lucayans* possessed the Bahamas; the *Arrowauks* the Greater Antilles, and probably a part or the whole of Trinidad; and the *Caraibes* the other Caribbean islands, at the time of their discovery. The *Arrowauks*, however, were the original occupants of these also. A more minute account of these nations will be given hereafter.

Buccaneers.] Some notice is due to a class of men so long celebrated in these seas for their successful piracy and dauntless valor. The name is derived from the Caribbean word *buccan*, signifying a grate or hurdle of Brazil wood, on which the *Caraibes* prepared their meat, placing it in the smoke at a good distance from the fire; and was given this class of men because they adopted the custom. They consisted originally of a body of French and English planters, who were expelled from St. Christopher by the Spaniards in 1629, with circumstances of outrageous barbarity; and immediately established themselves on the little island of Tortuga, 4 leagues N. of Port Paix, in the N. W. part of St. Domingo. They were soon joined by a considerable number of Dutch emigrants, expelled from Santa Cruz in the same manner. Their first business was hunting wild cattle on the plains of St. Domingo, which they *buccaned*, and brought to the place of their retreat. The hides they sold to the vessels that came upon the coast, in return for clothes, liquors, fire arms, and ammunition. A Spanish armament, a few years after, without provocation, invaded Tortuga, and barbarously massacred all the women and children. The men had no alternative but to turn on their pursuers. Inured to the climate, united among themselves, and animated by all the motives and passions, which inflame the mind to great exertions; they became the most terrible antagonists the Spaniards ever en-

countered, and displayed such deeds of valor and successful enterprise, as were never surpassed. They assumed an appropriate dress, consisting of a shirt dipped in blood; a pair of dirty trousers; a leathern girdle, from which hung a short sabre, and some Dutch knives; a hat without any rim, except a flap before to pull it off by; and raw hide shoes without stockings. From Tortuga, as a centre, they dispatched parties in every direction, to rob and plunder the various Spanish settlements. An account of their exploits is the task of the historian. We will only remark here, that Montbars, a native of Languedoc, and Henry Morgan, a native of Wales, were their most celebrated leaders; that by their means Jamaica and the western parts of Hispaniola were rescued from the Spaniards; and that those two colonies, becoming their place of rendezvous, were long and greatly enriched by the enormous plunder brought by them from the coast of Spanish America. The war between England and France, in 1688, occasioned a disunion of the English and French buccaneers, which greatly weakened their force. The last enterprize undertaken by the former, was a most successful attack upon Carthage, in 1697. At the peace of Ryswick, in that year, all differences were settled between England, France, and Spain. The French and English monarchs, from that time, withheld the countenance and protection previously afforded the buccaneers, and they were soon lost among the other European inhabitants of the West-Indies.

Religion.] A majority of the whites in these islands are Catholics; all those in Cuba, Hispaniola, and Porto Rico are of this description; and a majority in those in the Caribbean islands, which were settled by the French. The church of England is, however, the established religion in all the English islands. In the Spanish islands, the negroes are taught by their masters the Catholic prayers; but they merely learn them by rote. In the English islands the Wesleyan Methodists have been laboring for some time among the slaves, and with very good success. In the year 1816, there were 36 Missionaries of this denomination, and the number of members among the slaves was 18,938. It was estimated, at that time, that the Methodist missions had placed the benefits of Christianity within the reach of at least one third of the negro population of the British colonies in the West-Indies, and it was expected that at no distant period every slave would be religiously instructed, and African superstition entirely banished from the islands. Besides the Methodist missionaries, there were in 1816, 15 Moravian and 3 Baptist missionaries, in the different West-India islands.

Governments.] The nature of the governments of the Spanish colonies has already been explained. In the English islands the government is vested in a governor or captain-general, appointed by the crown; in a legislature consisting of a council appointed by the crown, and of a house of assembly chosen by the freeholders; and in various superior and inferior courts, the judges to which are appointed by the crown. The governor is the ordinary

or judge of probate ; and in most islands the sole chancellor ; but in some the council, together with the governor, constitute the court of chancery. No bill can become a law in any island without the assent of the governor. After his assent is obtained it is a law, till the dissent of the crown is officially signified. If the assent of the crown is once officially procured, no subsequent dissent can afterwards abrogate the law. All laws must be in conformity with the laws of England.

Possessors.] Cuba, Porto Rico, and the eastern part of St. Domingo belong to Spain ; the western part of St. Domingo is independent ; Sweden claims St. Bartholomew ; St. Thomas, St. John and Santa Cruz belong to the Danes ; Saba, St. Eustatius, Curacoa, Buenaire, and Aruba to the Dutch ; Guadaloupe and Martinico to the French ; Jamaica, the Bahamas, and in general, all the other islands to the English. Several of the Lesser Antilles are uninhabited and unclaimed.

Inhabitants.] The present inhabitants of these islands are the natives, the whites, and the blacks.

In the eastern part of Trinidad a few of the natives are still found. None of the *Lucayans* now remain. There are a few *Caraibes* in some of the Caribbean islands.

The whites are of two descriptions, Europeans and creoles. The Spaniards call the Europeans *Chapotonos*. The *creoles* are *whites born in the West-Indies*. The epithet *white* is not, however, applied to them with the strictest propriety ; for, in a comparatively short period, the fine red and white of the north of Europe degenerates gradually to the *pale*, the *sallow*, and the *tawney*. Many of the creoles, also, if they loved to inquire into these particulars, upon looking back into their family history, might discover that their great grandmothers were of the *posterity of Ham* ; but as this is not an unfrequent case, as the genealogy of a man is of much less consequence than that of a horse, and as these unfortunates are not distinguishable by any apparent murkiness greatly superior to the common tinge, the defect is generously overlooked. Edwards says that the creoles are taller, but more slender, than the Europeans ; that they are distinguished by the suppleness of their joints and the ease and agility of their movements ; and that their skins are cooler, and their eyes sunk farther in their heads. He speaks of them, also, as arriving early at maturity, and as possessed of great quickness of apprehension ; as remarkable for a warm imagination, and a high flow of spirits ; as frank, generous, hospitable, and rash ; and, at the same time, as proud, impatient of subordination, litigious, and indolent. The Europeans constitute the bulk of the English, and we believe of the French sugar colonists, but the creoles are the most numerous in the Spanish islands. The Europeans are said to be more cruel to their slaves than the creoles. Both are licentious in their morals. The Spanish colonists are undoubtedly the most corrupt. Not only the men but the women, also, are deplorably profligate. The most reputable travellers assert, that scarcely any thing like personal purity is to be found there, except in unmarried females. The number of mulattoes in the Spanish islands is, also,

prodigiously great, compared with the whole number of blacks. This most loathsome intercourse is, also, very common in the French colonies. Though not uncommon, it is less frequent among the English colonists.

The blacks are of two descriptions; *free people of color* and *slaves*. The free people of color include all the *mixed*, and most of the *genuine* blacks, in the Spanish colonies; most of the first, and a few of the last, in the English; and but a small portion of both in the French. The French planters often employed their own mulatto children as house servants; this, however, we believe the laws did not admit. The mixed blacks, in the Spanish colonies were divided into many grades heretofore enumerated. In the British islands, persons of a mixed race are known by the names *samboes*, *mulattoes*, *quadroons*, and *metizoes*. A *sambo* is the offspring of a black and mulatto; a *mulatto*, of a black and white; a *quadroon*, of a mulatto and white; a *metizo* or *mustee*, of a quadroon and white. Those of the women, of the mixed breed, in the English islands, who are young and of a tolerable person, are universally kept as mistresses. The men lay claim to an entire superiority over the blacks; and in all the islands they are deprived of many of the privileges of the whites.

The slaves constitute the great majority of the inhabitants in all the islands, except the Spanish. The appearance and character of the slaves depends much on the district in Africa from which they are brought. As to the treatment of the slaves the Spanish code is the most mild and equitable. The clothes, food, hours of labor, beds, bedding, and lodgings of the slaves are superintended by the magistrates. On holidays they are excused from work, and are taught the Catholic prayers. On work-days, each slave has two hours of leisure. Men after 60, and boys before 17, are excused from field labor. Women are employed only in business proper for their sex, and do not work in company with the men. Slaves are allowed to marry the slaves of other masters; and the master of the man slave must, in that case, purchase the female at a fair valuation. No master may inflict more than 25 lashes; and these must not occasion any contusion, or effusion of blood. Any one, who strikes a slave, beside the master or steward of the plantation, is liable to the same penalty as if he struck a white man; as is the master or steward, if he inflict a heavier punishment than the law allows. When a slave dies, information must be given by the master, in three days, or he is compelled to *prove* that the slave died a natural death. Slaves have a right to redeem themselves at a fair price. Female slaves, cohabiting with their masters, are free. Any act of acknowledgement by the father entitles these illegitimate children to his estate, on failure of legitimate issue. Depons says, that, except in the article of comfortable food and clothing, these laws are generally observed. Hardly one of these requisitions is observed or found in the English islands, and but few of them in the French. The African institution has lately turned the attention of parliament to the cruelty of the English slave code, and to the fiend like tortures inflicted by many of the planters.

Climate and Seasons.] Edwards divides the West-Indian year into four seasons of very different length. The spring commences with the month of May, when the foliage becomes more vivid, and the savannas look green again. The first periodical rains set in about the middle of the month; they come from the S. commonly fall every day about noon, and break up with thunder storms towards evening, creating a bright and beautiful verdure, and a rapid and luxuriant vegetation. They continue about a fortnight. The thermometer, in this month, averages 75 degrees, and commonly falls 6 or 8 immediately after every diurnal rain. Summer commences about the first of June. The weather becomes dry, settled, and salutary; not a cloud is to be seen; and the sky shines with serene brightness. The heat is insupportable in the morning, till about 10; when the sea breeze sets in, and blows with great force and regularity from the S. E. till late in the evening. During its prevalence the climate in the shade becomes tolerable. The medium heat is now 80°, and the mercury is seldom above 85° or below 75°. At this season the clearness and brilliancy of the heavens by night, and the serenity of the air, produce the most calm and delightful sensations. The moon in her seasons, displays singular radiance, and the milky way almost supplies her absence. The planet Venus, too, casts a distinct shade; and with the other luminaries of night, makes full amends for the short duration of twilight. About the middle of August, the diurnal breeze begins to intermit, and the atmosphere becomes sultry and suffocating. During the remainder of the summer, which may be considered as lasting till the latter part of September, coolness and comfort are sought in vain; instead of a regular breeze from the sea, there are faint breezes and calms alternately; and the thermometer occasionally rises above 90°. Towards the last of summer large towering clouds, fleecy, and of a reddish hue, are seen in the morning, in the S. and S. E. The tops of the mountains, at the same time, appear free from clouds, wear a bluish cast, and seem nearer than usual. In the beginning of autumn, when these vast accumulations of vapor have risen to a considerable height, they commonly move horizontally towards the mountains, proclaiming their progress in deep and rolling thunder, which is answered by the distant but loud roar of the ocean. The rains commence in the beginning of October. The heavens pour down cataracts, and the earth is deluged. These violent rains last through the greater part of Nov. The hurricane season comprises the months of August, September, and October. About the first of December, a considerable change is perceived in the temperature of the air; and a new season commences, which lasts to the end of April. At first the northern coasts are beaten by a rough and heavy sea, roaring with incessant noise; the wind varies from the E. to the N. E. and N.; sometimes driving before it, not only heavy rains but hail; till at length the atmosphere is cleared, the weather becomes steadily serene and pleasant, and the temperature cool and delightful. This lasts till the month of May, and is, to the sick and the aged, the climate of paradise. In the large islands showers occur on the mountains every month in the year, and considerable rains are expected

on their north coasts in December and January. In these, also, the sea breeze, by day, is regularly followed by a land breeze, by night, blowing in directly opposite directions on the opposite coasts; but in the small islands there is no such alternation.

Agriculture.] Sugar is the capital object of agricultural attention in these islands. The three next in importance are cotton, indigo, and coffee; and after them cacao, ginger, allspice, arnotto, aloes, pimento, cloves, and cinnamon. Maize, yams, and sweet potatoes, are also extensively raised in the field for home consumption.

Sugar was known to the ancients. They called it *sacharum*: a word corrupted, in monkish Latin, into *zucharum*, and afterwards into *zucra*, and thence converted by the Spaniards into *azucar*, by the French into *sucre*, and by the English into *sugar*. It is a native of America, for it was found in the Greater Antilles by Columbus; and the Caribes had it in their own islands before they were planted by Europeans.* The plant is a jointed reed, terminating in leaves or blades, whose edges are finally and sharply serrated; and, when ripe, of a fine straw color, inclining to yellow. It contains a soft, pithy, substance, which affords a copious supply of juice, of a sweetness little cloying, and highly agreeable. The distance between each joint varies, according to the fertility of the soil, from 1 to 3 inches; and the diameter of the cane from half an inch to an inch. In the strongest lands it measures 12 feet from the stole or root to the upper joint; but generally from $3\frac{1}{2}$ to 7. The stole in the best lands has been known to put forth 100 suckers. The best soil is the ashy loam of St. Christopher, then the brick mould of Jamaica, and then the black mould of several varieties. Too little attention is paid to the manuring of the lands. The common manure is a compost formed of ashes, the feculences of the still house, field trash, the dung of stables and moveable pens, and good mould. The proper planting season is in September and October. The ground is prepared by laying it out in holes or trenches. The cuttings selected for planting are commonly the tops of the canes, that have been ground for sugar. Each top has 5 or 6 germs, two of which are sufficient for one hole or spot. The germs are placed longitudinally in the bottom of the hole, and covered with mould about two inches deep. In 12 or 14 days, the young sprouts appear. They must be kept wholly free from weeds, and frequently furnished with additional mould. In rich and moist lands, the cane does not ripen under 16 or 17 months, but in light soils 2 months earlier. The calculation is therefore to have two or three sets of canes, in every plantation. Crop time is in every island a season of universal festivity. The plants should be cut with a bill near the root, and a small distance from the cluster of leaves at the top. The tops are reserved for planting. Good land will profitably admit of five successive cuttings, but each will be less than the preceding. The mills in which the canes are ground consist of three upright iron plated cylinders, from 30 to 40 inches in length, and 20 to 25 in diameter. The middle one, to which the moving power is applied,

* Edwards, III. 13, 14.

turns the other two by cogs. The canes are twice compressed, passing through the first and second rollers, and then being forced back by a kind of framework through the second and third. This last operation leaves them completely dry, and sometimes even reduces them to powder. They then serve for fuel to boil the liquor. The juice falls into a leaden bed, and is thence conveyed to the receiver; from which wooden pipes, lined with lead, convey it to the boiling house. It commonly consists of 8 parts water, 1 part sugar, and 1 part gross oil and mucilaginous gum, with a portion of essential oil. The richest juice has the least oil and gum. Sometimes a portion of the green tops are ground in, which tend to acidify the whole; and often, also, a thin black coat of matter round the cane, between the joints which serves to discolor it. In the boiling house, the liquor is received into copper chaldrons, called *clarifiers*. Three of these, of 400 gallons each, will make 20 hhds. of sugar a week. Each is provided with either a syphon or stop cock to draw off the liquor. Each has a flat bottom, and is hung to a separate fire; each chimney has an iron slider, called a *damper*; which being shut, the fire goes out for want of air. The clarifier being filled with fresh liquor, and the fire lighted, the *temper* is stirred in, commonly Bristol white lime, in the proportion of half a pint to a hundred gallons, to neutralize the acid. In a short time a scum arises consisting of gum, oil, and other impurities; when the heat is gradually increased, nearly to the heat of boiling water; but the liquor must by no means be suffered to boil. In about 40 minutes the scum rises in blisters, which break in white froth. The damper is then applied, and the fire extinguished. By the syphon or stop cock, the pure liquor, after the lapse of an hour, is drawn off, and falling into a pipe, is conveyed to the evaporating boiler, called the *grand copper*. Here it is suffered to boil; and, as the scum rises, it is taken off by scummers. It is then laded into the second boiler, and the boiling and scumming are continued; and afterwards into the third and fourth. From the last it is laded, when exceedingly thick, into the *coolers*. Of these there are commonly 6; each a shallow wooden vessel, 11 inches deep, 7 feet long, and 5 wide, and holding a hogshead of sugar. Here the sugar grains, that is, runs as it cools, into a coarse irregular mass of semiformal crystals, separating itself from the molasses. Hence it is conveyed to the *curing house*, a large airy building, provided with a capacious molasses cistern, with sloping sides. Over this, is a frame of massy joistwork, on which open, empty hogsheads are ranged. In the bottoms of these, 8 or 10 holes are bored, through which the stalk of a plantain leaf is thrust. Into these hogsheads, the mass from the cooler is poured; the molasses in three weeks drains off, and the sugar grows tolerably dry and fair. This is called *muscovado*.

The *clayed* sugar is more refined, and is thus prepared. A quantity of sugar from the cooler, is put into a conical pot with the point downward, and having a hole of half an inch diameter at the bottom, for the molasses to drain through. After the mass is become cool, the plug at the bottom is taken out, and the molasses continues to drop from 12 to 24 hours. A stratum of clay is then spread on the sugar, and moistened with water; which oozes through the

clay, and unites with, and dilates the molasses, carrying off a much greater portion of the impurities. This process occasions the loss of *one third* in weight, and is not much pursued in the English islands.

About 2000 gallons of cane juice, yield 1 hhd. of muscovado sugar of 16 cwt.

The process of making rum is as follows. For a plantation yielding 200 hhds. of 16 cwt. 2 stills are necessary; one of 1200, the other of 600 gallons, with the proportionate pewter worms. Large tubs must be provided, to contain water to cool the worms, unless a stream of running water can be substituted. For working these stills, it is necessary to procure a *dunder* cistern, of 3000 gallons; a cistern for the scummings; 12 fermenting vats, each of 1200 gallons, together with two copper pumps to convey the liquor from the cisterns, and pump up the *dunder*; and butts to hold the spirit. The ingredients for making the rum, are molasses, scummings, *dunder* or lees, and water; and when mixed are called the *wash*. Of the three last, a third of each* is put in the fermenting cisterns, and in about 24 hours the fermentation is sufficient to put in the molasses: 3 gallons for every 100 of fermenting liquor and 3 more, a day or two after. The heat should vary from 90° to 94°. From the 5th to the 8th day, the fermentation gradually subsides. The liquor is then put into the large still, flaring it to within 8 or 10 inches at the top. A clear transparent liquor comes through the worm in about 2 hours, and is suffered to run till it is no longer inflammable. This is called *low wine*, and is drawn off into butts, and conveyed to the second still; from the worm of which it comes over a pure spirit, in which oil will sink. The common proportion of rum to sugar on a plantation, is about 2 to 3, or 200 gallons to 3 hhds. of 16 cwt. From 1200 gallons of wash, 272 of low wine are made, and from these, 113 of proof rum. Besides the molasses used in the distillery, 60 gallons will be furnished by the plantation for every 3 hhds. of sugar of 16 cwt.

A sugar plantation of 900 acres, will yield 200 hhds of 16 cwt. In one of this extent, 300 are planted with canes, 300 are reserved for provisions, and 300 for timber. The land and clearing will cost 14,100*l.* currency; the buildings 7000*l.*; 250 negroes 17,500*l.*; 80 steers 1200*l.*; 60 mules 1680*l.*: total 41,480*l.* Jamaica currency, of which 42,000*l.* are equal to 30,000*l.* sterling.

Two kinds of *cotton* are cultivated in the West-Indies, the *green seed*, having 2 varieties, and the *shrub cotton*, having 5. Cotton is cultivated chiefly on the mountains.

Three species of *indigo* are cultivated, the *wild*, the *Guatemala's*, and the *French*. The plantations are also in the mountains.

The *cacao* is a native of S. America.

Ginger was very early brought from the East-Indies to Hispaniola. It is a root, planted like the common potato, and dug once

* This is the rule in the Caribbean islands. In Jamaica, the proportions are *dunder* 50, scummings 36, water 8, and molasses 6. One hhd. of 16 cwt. will yield 140 gallons scumming.

a year. If intended for preserves, it is dug while green. An acre will yield 140 pounds.

Arnotto is derived from a shrub 7 or 8 feet high, bearing oblong hairy pods. Within are 30 or 40 seeds enveloped in a pulp of a bright red color. The pods are gathered chiefly from plants growing spontaneously, and are boiled in clear water, till the seeds are extricated. The sediment is the *arnotto*.

The *aloes* is a small plant, propagated by suckers, and thrives in the most barren soil. A strong decoction is made, which is boiled to the consistence of honey, and then suffered to harden.

The *pimento* tree is a native of Jamaica. It blossoms in July, and August; and, soon after, the berries are fit to be gathered. They are gathered by the hand, and exposed to the sun about 7 days, till the green color is converted to a reddish brown.

The *cinnamon* tree is cultivated in Jamaica, and the clove tree in Dominica.

BAHAMAS.

EXTENT, SITUATION, HISTORY, ORIGINAL POPULATION, GOVERNMENT, POPULATION, NAVIGATION, BANKS, KEYS, WRECKERS, CLIMATE, FACE OF THE COUNTRY, SOIL, PONDS, BOTANY, ZOOLOGY, ISLANDS.

Extent.] THESE islands lie between lat. 20 and 28° N. and between lon. 69 and 80° W. They stretch from the bank of the Nativity in the S. E. to Marinilla Reef in the N. W. upwards of 900 miles.

Situation.] They lie directly N. of the Greater Antilles, and are separated from Cuba by the Old Bahama channel. The gulf of Florida, or the New Bahama channel separates them from the E. coast of East-Florida. Through this channel the gulf stream passes.

History.] Columbus discovered Guanahani, one of this groupe of islands, on the 12th of Oct. 1492; and New-Providence, the most important in the groupe, on the 17th of the same month. In 1667, Charles II. granted all the Bahamas to the duke of Albemarle and 5 others, proprietors of Carolina. In 1672, the first settlement was commenced in the island of New-Providence, and called Nassau. The islands, soon after, became the resort of pirates; and the regular inhabitants suffered severely, and for a long time from their attacks, and those of the Spaniards. In 1708, the Spaniards, assisted by the French, carried off all the negroes; and the whites, about 1000 in number, withdrew to Carolina. Some promising attempts had previously been made to cultivate provis-

ions, sugar, and tobacco. The pirates immediately took possession of Nassau, and made it their capital. Here they rioted in debauchery and excess; and were long the terror of mariners, and of the North-American coast. The celebrated *Black Beard*, alias *John Teach*, was their leader. For about 10 years he was considered as the sovereign of these islands. It would be difficult to find in history actions more sanguinary and infernal than are recorded of this man. He was killed off the coast of North-Carolina, Nov. 22, 1718. The islands were soon cleared of pirates, and a permanent settlement made at Nassau, under governor Rogers. The town was fortified in 1740. Early in the American war, the town was taken by the Americans, but speedily abandoned. The Spaniards took it again in 1781, but it was retaken by Col. De-veaux, with about 70 troops, though garrisoned by 700. Since that time all the islands have been in the hands of the English.

Original Population.] The aborigines were called Lucayans. When first discovered they were about 40,000 in number. In person they were of a middle stature; well shaped, but rather fleshy; of an olive color; with high foreheads, open countenances, and regular features. They were for the most part naked, and painted their bodies generally red, but sometimes black and white. They subsisted chiefly on fish, and were devoted to a maritime life. Some of their canoes were large enough to carry between 40 and 50 persons. They were totally ignorant of the use of iron; and the only articles of value discovered amongst them, were cotton and gold. They were averse to war, but sometimes armed in self-defence. Their javelins were pointed with fish bones. Their principal talent was an extraordinary expertness in diving. Columbus and his men were welcomed by the Lucayans, with kindness and hospitality. Scarcely 20 years had elapsed, however, before the Spaniards transported them all, by force or artifice, to Hispaniola, to dig in the mines. Some few effected their escape from that island, though many were frustrated in the design. Two men and one woman had constructed a raft; and having laid in a stock of maize, and of water in gourds, they put to sea, steering northward for New-Providence. They were often washed from the deck of their precarious vessel: but being admirable swimmers, and accustomed to struggle with the waves, they regained their raft; and working their way with paddles, had actually proceeded 150 miles on their perilous voyage, when a Spanish ship fell in with them, and carried them back to a life of slavery and torture. The most skilful divers among them were transported to the coast of Cumana, and employed in the pearl fishery, on the islands of Margaritta and Cubagua. One hundred and fifty ducats, at that time a large price, was often given at Hispaniola for a diver of the Bahamas. They survived, however, but a few years under the dominion of their oppressors.

Government.] These islands are all under a governor general, appointed by the crown. He is commander of the militia; institutes and determines the sessions of the legislature; and possesses

a negative on their proceedings. His income is nearly 3000*l.* sterling.

The legislature is composed of a council, and house of assembly. The council consists of 12 members, appointed by the crown, usually at the recommendation of the governor. They continue in office during life. The house of assembly consisted, in 1803, of 26 members, returned by the several islands in the government, distributed into districts. New-Providence, then sent 8, Harbor island 3, Eleuthera 3, Abaco 3, St. Salvador 1, Long island 2, Exuma 3, Andros 2, and Crooked island 1. Turk's island refused to send any, disclaiming all connexion with the other islands. The qualifications are property of the value of 2000*l.* *currency, or 200 acres of cultivated land. Every free white male 21 years of age, having resided 12 months in the government, and having been a householder, or freeholder the six preceding months, or paid duties to the amount of 50*l.* in the preceding year, has a right to vote for members of assembly.

The governor and council constitute the court of chancery, and the high court of errors and appeals. If the matter in dispute exceed 500*l.* currency, an appeal lies to the king in council. The supreme court consists of a chief justice, with an income of 1280*l.* sterling, and 2 puisne judges, with an income of 340*l.*; and holds 3 sessions, of 3 weeks each, from the 1st of January, April, and July. An appeal lies to the governor and council where the matter in dispute exceeds 300*l.* An inferior court is held every 3 months, taking cognizance of causes where the matter in dispute does not exceed 20*l.* There is also, a court of vice admiralty at Nassau. The attorney general for these islands, has a salary of 500*l.* sterling. The rate of interest is 6 per cent. The damages on protested bills of exchange returned from Europe, are 20 per cent. and from America, 15.

Population.] The inhabitants are of two descriptions, the *residents* and the *wreckers*. In 1773, the number of whites, was 2,052 and of blacks, 2,241. In 1803, there were 3,923 whites, and 11,395 blacks; in all 14,318. It appears, by a return to the house of commons in 1805, that the number of slaves imported for two years previous to 1803, amounted to 2523, of whom 2,230 were exported, leaving 293 for the use of the colony.

The *residents* are chiefly loyalists, and their descendants, who emigrated from Carolina, and Georgia, at the close of the American war.

McKinnen describes the whites generally as having regular features, and the women as singularly beautiful. They are commonly of an amiable and beneficent disposition, mild to their slaves, and public spirited. They are generally acquainted with what is going on throughout the Bahamas, and readily engage in plans of general or local improvement.

Religion.] In 1816, there were six missionaries of the Wesleyan Methodist denomination, laboring in these islands. According to

* The currency is the same with that of New-York, 8*s.* to the dollar.

their returns, there were 1,134 members in connexion with their society.

Navigation.] The trade winds render it easy to sail from the southern to the northern extremity. The gulf stream also, in the W. renders a northern course no difficult task ; but to retrace one's steps in either path, is a work of great difficulty. Owing to the immense number of sand banks, rocks, and breakers, every where dispersed over these seas, the navigation, except with a most skilful pilot, is extremely unsafe. Columbus however, made his way without injury through the Bahamas, to Cuba. Without a chart or pilot, he steered safely through, under the direction of Providence, though so many thousand vessels have since been wrecked. Vessels bound to New-Orleans, from the United States, first make for the Hole in the Wall, the southern point of Abaco. Proceeding through the N. E. channel, they enter on the Great Bank S. of Berry islands, and leave it S. of the Cat Keys, whence they make for the Havanna. Those bound to Jamaica pass to the leeward of Crooked island, between it and the Great Bank, and leaving the Inaguas on the left, make for the windward channel, between Cuba and Hispaniola.

Banks.] There are two noted banks in these seas ; the Great and Little Bahama banks.

The Great Bahama bank lies between lat. 21 40 and 26 N. and between lon. 74 50 and 80 20 W. Its length from Verde Key in the S. E. to Isaac's Key in the N. W. is 450 miles. Its breadth in the S. is about 140 miles. A little N. of the tropic, it is divided by an arm of deep water, called Providence bay. The branch of the bank, N. E. of this bay, reaches from the head of it, about 90 miles, to New-Providence, its N. W. termination; and is every where about 40 miles wide. The W. branch, extends from the head of the bay, 250 miles N. W. to Isaac's Key. Its least breadth is 50 miles ; and its greatest, from the Biminis to Berry islands, 100. Providence bay is 100 miles long, from S. E. to N. W. and about 30 broad, opening, on the N. W. side of New-Providence, into the N. E. channel. The Old Bahama channel separates this bank from Cuba. This channel in the N. W. is divided by the Santareen bank, into the Santareen channel, next to the Great bank, and Nicholas channel, next to Cuba. Florida gulf, lies on the W. of the Great bank, dividing it from Florida ; the N. W. channel on the N. divides it from the Little bank ; Rock sound, and Exuma sound on the N. E. separate it from Fleuthera and Guanahani. Long island, the Exumas, Stocking island, and an immense number of keys, flank the N. E. coast of the Great bank, as far as Providence. The Holy Ghost isles, Andros island, and the Berry islands, skirt the western branch, on Providence bay ; and Isaac, the Biminis, Cat Keys, and various others, the W. coast of the same branch.

Little bank, is bounded by Florida gulf, on the W. ; N. W. channel on the S ; N. E. channel on the S. E. ; and the Atlantic on the N. E. Its length from the Hole in the Wall, in the S. E. to Maranilla Reef, in the N. W. is about 180 miles, and its breadth from 40 to 70.

Santareen, Eleuthera, Guanahani, and Caicos banks, are all of considerable extent.

These banks are said to consist, in a great measure, of sea shells, in the form of sand, more or less worn or rounded by the action of the water. At a certain depth, this sand is underlaid by calcareous rocks, the heads or fragments of which, in many places, appears at the bottom. The depth of water on the Great bank, varies from 1 to 7 fathoms, on the Little bank, from 3 to 12; on the others, it is generally deeper. The light color of the sand, and the transparency of the water, render the bottom visible at any depth; and thus, in some measure, diminish the danger of the navigation.

Keys.] These are rocks or sand islands, scattered in immense profusion over this part of the ocean. Their number has been computed at 700. The larger and more remarkable have received appropriate names; the rest have no other denomination than the generic names of *keys* or *quays*. The great body of them skirt the banks. The rest are in the main ocean.

Wreckers.] The inhabitants of the Bahamas, previous to the American war, were principally engaged in a sea faring life; and, in allusion to the large and beautiful shells with which their shores abound, were, by their visitors, nicknamed *conchs*. These persons, with their slaves, are constantly employed in the business of *wrecking*, that is, of rescuing shipwrecked vessels, with their crews and cargoes from the waves. They sail in small flat bottomed sloops, just fitted for the seas which they navigate. They are excellent sailors, and swimmers; are familiar with all the keys, shoals, and breakers; and, with alacrity and courage, encounter any danger and hardship. They are licensed by the governor, and receive salvage on all property rescued from the waves. By day, they are always cruising; at night, they usually put into the nearest harbor. The number of these vessels is very great. McKinnen mentions 40 sail, as lying off one inlet, on the Florida coast. This is a convincing proof of the numerous victims continually thrown on the shoals. The wreckers are accused of being rapacious; and of endeavoring, in a variety of ways, to increase the number of shipwrecks, that their salvage may be augmented. Their great places of rendezvous are the Florida gulf; the Hole in the Wall, and the Hogsties.

Climate.] In the winter the weather is very inconstant. The winds, however, are then far less boisterous than in the more northern seas. Strong gales are common, in March, from the N. and N. E. The proper hurricanes of the more southern West-Indies do not reach these islands. In the hurricane months, however, the gales often stiffen to a tempest, and are very destructive in their ravages. They are so far ordinary that regard is had to them in the mode of building. In 1800, or the year after, one of these tempests drove 100 vessels ashore in the safe and sheltered harbor of Nassau.

From a register, accurately kept for several years in Crooked island, it appears that the medium temperature of 2 P. M. in summer is 86°; and in winter 72°. The greatest heat, in summer, sel-

dom exceeded 90°; and the greatest cold, in winter, 50. In February and March the thermometer of that island ranges between 70 and 80°. The temperature of New-Providence is 2 or 3° cooler than that of Crooked island. All the islands are healthy.

Face of the Country.] These islands are heaps of limestones and shells, covered with vegetable mould. The *keys* are chiefly rocky and sandy: on some of them a few trees are found. All the large islands that front directly upon the Atlantic, and almost all the others, stretch from S. E. to N. W. and the ridge of each is in the same direction.

Soil.] The soil of all the islands is a thin, but rich, vegetable mould. If the natural growth is cleared by burning, the mould burns with it, and the soil is ruined. If not, it yields, for a number of years, luxuriantly, and then is exhausted. Without manure, which cannot here be procured in any considerable quantity, it will yield no longer; and the planter is compelled to clear a new plantation. Many of them, deluded, on their first arrival, by a deceitful prospect of prosperity, have found themselves, in a few years sinking into ruin, from which no exertions on the spot could effectually relieve them. Their only resource has been a removal to some other island. The forsaken plantation, in a year or two, is covered with young forest trees, and, in 20, with a new coat of vegetable mould.

The chief article of culture in these islands is cotton. Guinea corn is raised in all of them, and is highly nutritive. Here, also, are pine apples and oranges.

Ponds.] Most of the Bahamas have numerous salt ponds. Those of Turk's island are the most valuable. A more minute account of them will be given hereafter. The islands contain no fresh water streams. The wells are necessarily dry to a considerable depth.

Botany.] The principal trees are the buttonwood, elemi, common, silver-leaved, hog, and small palmetto; wild fig tree, cactus opuntia; wild pimento, mahogany, brazilletto, mastic, lignumvitæ, iron wood, bullet wood, croton eleutheria, croton cascarella, and mountain cabbage. The pitch pine abounds in New-Providence. The timber of these islands is not distinguished for its size or long life. The orange and pine apple are the common fruits. The lime, shaddoc, sapadilla, and mimosa are cultivated. Strawberries, and many of the northern fruits, are raised at Nassau.

Several varieties of the gardenia, the red mangrove or seaside grape, the sage tree, wild tobacco, wild coffee, wild cinnamon, butter bough, candlewood, Palma Christi, horehound, vervains, squills, capillair, and a plant called *tea*, are among the shrubs and plants that grow wild in the Bahamas.

The *anana*, a species of misleto, grows on the limbs of various trees. The compact clusters of its leaves retain a considerable quantity of rain water. The early visitors procured their supply from it.

Zoology.] The only tame animals possessed by the natives, it is said, were *parrots*, and a species of *dogs* that did not bark. A number of cats left on Guanahani by the early voyagers have multiplied astonishingly over all the Bahamas. Lizards and guanas are abundant and are thought a luxury.

The tall red bird is common ; its flesh is very rich. Large flocks of flamingoes are found in the bays. The bald headed pigeon, the wild pigeon, and green parrot abound in the fields and plantations. The humming bird and ground dove frequent the pineries and groves, and the mocking bird enlivens the shore with its sprightly melody.

The fish caught here are the hynde, grunt, sword fish, king fish, jew fish, hog fish, angel fish, bill fish, hound fish, parrot fish, trumpet fish, gar fish, bream, ten pounder and crab. Alligators are occasionally caught for the table. The flesh is hard and white, and resembles that of a sturgeon.

Islands.] Besides the keys already mentioned, the Bahamas consist of 14 islands or groupes of islands, which demand a more minute description. The following are their names in a geographical order, commencing from the S. E.

Turk's Islands	Watling's Island
Caicos	Guanahani, St. Salvador, or Cat Island
Inaguas	Eleuthera and Harbor Islands
Mayaguana	New-Providence
Crooked Island Groupe	Andros
Long Island	Abaco or Lucaya
Exuma	Great Bahama

A particular account of each is subjoined.

TURK'S ISLANDS.

The Spaniards call these *Los Amanas*. They abound with a dwarfish species of cactus, (*cactus coronatus*) vulgarly called *Turk's head*, from the striking resemblance the plant bears to a Turkish cap. Hence the English name. The two principal islands are the *Grand Turk*, in the N. and the *Salt Key*. The *Grand Turk* is 12 miles long from N. to S. and averages 2 in breadth. It is about 200 miles N. W. of the Bank of the Nativity. The residents are about 18 heads of families, and 40 slaves. The inhabitants disavow any connexion with the Bahamas, and refuse to send a delegate to the legislature at Providence. In the early part of the year, great numbers come over from Bermuda for the purpose of raking salt ; sometimes between 1 and 2000. The salt is procured from salt ponds, which are numerous. The largest pond is in the *Grand Turk*, and is more than a mile in length. Another, on the *Salt Key*, is of nearly equal size. Early in the year, the salt in these ponds crystallizes, and subsides in solid cakes. The process is facilitated, however, by making small pans. These pans are laid out by the rakers on the margin of the

ponds, and are filled from time to time with the brine about 6 inches deep; which is thrown by a moveable machine, like the wheel of a water mill, from the ponds into a gutter, and thence the pans are easily supplied. A single laborer will rake from 40 to 60 bushels of salt in a day.

A free port is established in the Grand Turk, from which the Americans are permitted to carry away salt in their own bottoms, subject to a duty of $3\frac{1}{4}$ cents per ton. The receipts of the year 1802, amounted to \$9,911:11, which would indicate that 32,035 tons had been carried away.

The soil of these islands is sandy, and admits of but little cultivation. A small quantity of Guinea corn is raised.

THE CAICOS.

This is an Indian name, derived from a native plum tree. The English sailors call the islands the *Caucus*. They lie N. W. of the Turk's islands, in the form of a crescent, opening to the S.; and are separated by narrow passages. The four principal are the *Grand, North, Middle, and West Caicos*. Grand Caicos, is about 30 miles long. In 1788, they contained 12 heads of families, and between 200 and 300 slaves. In 1803, there were 40 whites, and nearly 1200 slaves; but many of the latter have since been removed. They had not, in 1803, sent any delegate to New-Providence. A port of entry is established. West-India fruits here come to perfection. Horned cattle and hogs succeed well. The soil is the best in the Bahamas. The staple commodity is cotton. There are 2 or 3 sugar plantations. The Caicos bank is about 70 miles by 50. The islands flank the N. E. side of it; and numerous keys are on the S. W. side.

THE INAGUAS.

Inagua is a Spanish word, denoting that "*water is to be found there.*" The English sailors call them the *Henegas*. These islands are two in number, the *Great* and *Little Inagua*; and lie S. W. of the Caicos, and directly N. of the Windward channel. Great Inagua, is 50 miles long, from E. N. E. to W. S. W. and 15 broad. Little Inagua, lies a little distance N. of it. A dangerous reef lies off Great Inagua, and the two islands are noted only for the number of shipwrecks on the coast. There were no inhabitants in 1803; but at that time, a few families were proposing to remove, on account of the numerous salt ponds.

At the distance of 10 or 12 leagues N. N. W. of Grand Inagua are some small keys, with wings or reefs of rocks on each side in form of a horse shoe, which admit a passage from the E. and form a harbor. The French call them *Les Etoiles*; the English *The Hogsties*. Some cocoa nut trees have been planted on one of them. The *wreckers* find considerable employment here. A key a little

W. of these rocks is known by the name of *Ragged island*. They are all uninhabited.

MAYAGUANA.

This island lies 25 leagues W. N. W. of West-Caicos, and 18 N. E. by E. of the Hogsties. It is 25 miles long, has a reef at the E. end, and is uninhabited. The *French keys*, 8 leagues N. W. by N. of the S. W. point of Mayaguana, are dangerous reefs.

CROOKED ISLAND GROUPE.

This groupe includes Castle island, Crooked island, Acklin's island, Atwood's keys. Castle island, 16 leagues S. W. of the French keys, is small, has a shore of bright sand, and is not inhabited. A large white rock on the S. of it looks like an old castle.

Crooked island consists of two parts making nearly a right angle with each other. The northern runs 30 miles E. by S.; the southern is about 35 miles long, and the mean breadth of the whole 8 miles. Pittstown, the capital, a little village, is on the outer angle. The London and Jamaica packets stop here every month. At a small distance from it is a remarkable bank, called the Bird Rock, in lat 22 48 N. lon. 73 55 W. Crooked island was not inhabited till 1783, when a number of royalists from Georgia and Carolina, who at first took refuge in East-Florida, removed here. In 1798, there were 40 plantations, with between 2000 and 3000 acres of cultivated land, and 1000 negroes on the island. It contains extensive forests and a number of salt ponds. There are two singular caves in the cliffs on the shore. Vessels go from Crooked island, by the help of the trade wind, to Providence, in 48 hours. It takes a much longer time to return. *Long key* lies in the bay between the two parts of the island. Its salt ponds are extensive. A gentleman with 40 negroes raked 35,000 bushels in a few months in 1802. *Acklin's island* is separated by a narrow channel from Crooked island. *Atwood's keys*, 12 leagues E. N. E. of the Bird Rock, are sandy, rocky, and barren. The population of the whole groupe in 1803, was 40 whites, and 950 negroes.

LONG ISLAND.

The southern part of this island lies directly W. of Crooked island. The N. end is under the tropic. The Indians called the island *Yuma*. It is 100 miles long, from S. E. to N. W.; and on an average 3 broad; and is the S. E. border of the great Bahama bank. It was settled before the American war; and a few years after the peace of 1783, contained 4000 acres under cultivation, and 800 slaves. Its soil is a good deal exhausted. A good carriage road runs 100 miles along the S. W. coast. The island contains two large salt ponds.

EXUMA.

This lies on the border of the Great bank, N. W. of Long island. The Exuma sound separates it from Guanahani. It is about 40 miles long, and 3 wide. Little Exuma, or Stocking island lies N. W. of it. The number of slaves on both, in 1788, was about 800. In 1803, there were 140 whites and 1113 blacks. The larger island has, on the N. E. side, one of the best ports for small vessels, in these seas. It is a port of entry. A great number of keys N. W. of Stocking island, skirt the bank the whole way to New-Providence.

WATLING'S ISLAND.

This lies about 60 miles N. E. of Long island, and is one of the most thriving spots in the Bahamas. It has been settled but a few years. *Rum key* lies between them, and contains one plantation.

GUANAHANI.

This is the Indian name. Columbus called it *St. Salvador*. It is the *Cat Island* of the English sailors, and the first land visited by Columbus. It is upwards of 100 miles long from N. W. to S. E. and extremely crooked. Royalists, from the southern states, settled it in 1783; and, in 1788, it contained 40 heads of families, 16 planters, 458 slaves, and 2000 acres of cultivated land. Port Howe, on the S. side, is the principal village. The soil is good. A number of small islands, and keys, lie W. of it, in the same groupe. The Guanahani bank is of considerable extent. The principal island skirts its E. side.

ELEUTHERA AND HARBOR ISLANDS.

Eleuthera is separated, by the Ship's channel, from Guanahani, and by Rock sound, from the Great bank; and is about 90 or 100 miles long, and 4 or 5 broad. Harbor island, adjacent to the N. is small. Before the American war, the first contained 119 white heads of families, the last 94, and 350 slaves. Eleuthera had then 725 acres of cultivated land. The *croton eleutheria*, a medicinal shrub, whose bark is sometimes substituted for the Peruvian, grows here: A chain of keys, stretches between the N. end of Eleuthera, and New-Providence.

NEW-PROVIDENCE.

The shape of this island, is that of a rhomboid. Its greatest diameter from E. to W. is 35 miles; its least from N. to S. 27. It lies directly W. of Eleuthera, and flanks the N. W. corner of the shorter arm of the Great bank. Nassau, the capital of all the Bahamas, is on the N. side of the island. Its harbor is formed by a long narrow slip of land, called Hog island, running from E. S. E. to W. N. W. Several small keys near the W. end of this, render the harbor

almost completely landlocked. The body of the town is on the S. side of the harbor, and extends on a pretty steep acclivity, to the summit of a ridge, which runs in the general line of the coast. The streets are regularly disposed, and remarkably well paved. The town is as well built as any in the West-Indies. The houses are chiefly of stone, the materials of most of which were brought from the Bermudas, a distance of more than 200 leagues. The discovery of several excellent quarries in the island has remedied this great inconvenience. In the western part of the town is a large open square, the N. side of which, near the water, is bounded by palisadoes. Immediately S. of this square, on the ridge, are a large fortress and barracks for the troops. There are two churches, for one of which the legislature voted 5000*l.* at one session; and a new court house, and jail, and a work house. In 1803, 10,000*l.* had been appropriated for building an elegant house for the governor general. In 1801, the town contained 1599 whites, 752 free blacks, and 3861 slaves; total 6212. It is divided into 2 parishes, each of which has a rector, supported liberally, partly by the inhabitants, and partly by the English society for propagating the gospel. The commerce of the town is extensive; and is carried on with England, with the West-Indies, and with the United States, which supply it with live stock, and provisions. The environs of the town consist of gardens, pastures, pineries, and orange groves. The roads along the shore, for some miles on each side of the town, are excellent. The climate is delightful.

The great body of the island is uncultivated, and its soil is generally inferior to that of most of the others.

ANDROS.

This island lies 10 leagues W. of New-Providence on the opposite side of Providence bay, and on the E. border of the larger arm of the Great Bahama bank. It is long and narrow, possesses a light soil, and is rocky. In 1788, it had 813 cultivated acres, 22 white heads of families, 7 planters, and 132 slaves. The islands of the Holy Ghost lie in a line with it to the S. E. The *Berry islands*, rocky, and uninhabited, are a little N. E. of Andros, near the N. E. corner of the bank; and directly W. of them lies a cluster of islets, called the *Biminis*; N. and S. of which are a great number of keys.

ABACO.

This was the *Lucaya* of the Indians, and is 12 leagues N. W. of Harbor island; the N. W. channel dividing them. Little harbor, on the E. coast, is one of the best in the Bahamas. The Hole in the Wall, the S. E. extremity of Abaco, is a point well known to sailors. In 1789, 2000 acres had been cleared. Many of the settlers have since deserted it. Abaco skirts the Little Bahama bank on the S. E.

GREAT BAHAMA.

Although this island has given name to the whole groupe, yet it is absolutely uninhabited. The gulf of Florida 19 leagues broad, divides it from the coast of East-Florida. It is 63 miles long, and 9 wide, and is covered with fine thrifty forests. It stretches its whole length on the S. W. border of the Little bank.

GREATER ANTILLES.

SITUATION, ABORIGINES, ISLANDS.

Situation.] THIS groupe lies between lon. 65 30 and 85° W and between lat. 17 40 and 23° N. Cuba, Hispaniola, and Porto Rico, lie in a line, from E. S. E. to W. N. W. Jamaica is S. of Cuba, and W. of Hispaniola.

Aborigines.] The original inhabitants of all the West-Indies, except the Bahamas, were *Arrowauks*. At the time of the discovery they were the sole possessors of the Greater Antilles, and the chief possessors of Trinidad. From the other islands they had been exterminated by the Caribes. These last represent the Arrowauks as descended from the Arrowauks of Guiana; and Raleigh, who visited Guiana in 1595, pronounces the tribe of this name in that country, to be the same people with the Arrowauks of Trinidad. The researches of Bancroft leave no room for doubt. All the islanders of this name had a common origin, spoke one language, possessed the same institutions, and practised the same superstitions.

Their color was a clear brown, resembling that of a sun burnt, Spanish peasant. The hair was uniformly black and straight, the features hard and unsightly, the face broad, and the nose flat. The natural form of the head, was altered by depressing the *cinciput*, or fore part of the head, from the eyebrows to the coronal suture; which gave an unnatural thickness and elevation to the *occiput*, or hinder part of the skull. Generally there was something pleasing and inviting in the expression of the countenance. It was an honest face, (says Martyr) coarse, but not gloomy; for it was enlivened by confidence, and softened by compassion. In stature they were taller, but less robust than the Caribes. Their limbs were pliant and active, and their motions displayed ease and gracefulness. They wore only a slight covering of cotton cloth round the waist, which in the women depended to the knees. Children went entirely naked.

They believed in one supreme, invisible, immortal, and omnipotent Creator, named *Jocahuna*; but admitted, at the same time, a plurality of subordinate deities. Their idols, called *Zemi*, were not regarded as symbolical representations of their subordinate divinities, but as real deities, and were universally hideous and frightful. Their priests, or *Bohitos*, consecrated one house in each village to the wor-

ship of the *Zemi*. They believed in a future state of rewards and punishments. Their *Coyaba*, or elysium, was a place of indolent tranquillity, abounding with delicious fruits, cool shades, and murmuring rills, and free from droughts and hurricanes.

These islands were divided into great kingdoms, subject to powerful caciques or hereditary monarchs. There were 5 in Hispaniola, several in Cuba and Jamaica, and but one in Porto Rico. The crown always descended to the male children of the principal queen, according to seniority; and, in default of these, to the brothers of the cacique, and next to the sons of his sisters, to the exclusion of his own children by his inferior wives. Each kingdom was subdivided into numerous principalities; the princes of which held them by the *tenure of service*. The regal authority was absolute, but was administered with great mildness.

Edwards fixes on 3,000,000 as the aboriginal population of the Greater Antilles. Peter Martyr, on the authority of Columbus, states that of Hispaniola at 1,200,000; that of Cuba was estimated at 1,000,000; and the remainder were probably nearly equally divided between Jamaica and Porto Rico.

The Arrowauks were a mild, and comparatively a cultivated people. The climate and the fertility of the islands naturally rendered them indolent. That necessity, which urges men to action, and, by exercise, invigorates the fibres, was here unknown. They were extravagantly attached to dancing; devoting the cool hours of night, from evening to dawn, to this employment. In their national dances as many as 50,000 men and women were frequently assembled at once, and the dancing was attended with historical songs called *arietoes*. Another diversion, called *bato*, nearly resembled the game of cricket. They lived in villages. Their furniture and utensils were various and elegant; particularly their earthenware, chairs, hammocks, and implements of husbandry. Some of their *piraguas* were navigated with 40 oars; and, generally, they were covered with awnings of mats and palm leaves, and built of cedar or the great cotton tree hollowed. Yams, maize, and manioc were the chief objects of their husbandry; of the last their *cassavi bread* was manufactured.

Many instances are recorded of their generous and compassionate turn of mind, of their benevolence and hospitality. Excessive sensuality was the predominant defect in their character. Though the *syphilis* prevailed in Europe long before the discovery of America; yet the Spaniards caught a species of the contagion in these islands immensely more virulent and deadly. In this way the natives have been terribly avenged. We believe that none of the descendants of the insular Arrowauks are now to be found, except a few that reside in a little town in Cuba, called *Iwanee*, near St. Jago de Cuba, who have adopted the Spanish language and manners; unless some of the Indians in the eastern part of Trinidad belong to this nation; but if we are rightly informed these are only *Caraibes*. The great body of the nation in the Greater Antilles were exterminated within 20 years after the discovery of Columbus. Their ancestors, the continental Arrowauks, are, however, at present, a distinct tribe in Guiana.

Islands.] The Greater Antilles consist of 4 large islands, viz.

Cuba	Jamaica
Hispaniola	Porto Rico.

CUBA.

This is the most western of the West-India islands, and larger than all the rest. It lies between lon. 74° and 85° W. and between lat. $19^{\circ} 45'$ and 23° N. It is 700 miles long, from E. S. E. to W. N. W; and, in the widest part, 150 broad; containing about 54,000 square miles. Nicholas and Old Bahama channels lie between it and the Bahama bank, on the N. E.; and the Windward channel, on the E. divides it from Hispaniola. The distance across from point Maysi to the Mole is 45 miles. The distance from cape Cruz to Jamaica is 90; and from cape Sable in Florida, to Cuba 130; but from the edge of the Florida bank, only 90. It is divided into 18 jurisdictions.

Columbus called this island *Juanna*, in honor of the prince, the son of Ferdinand; but it soon resumed, and has ever since retained, its native name of *Cuba*. Columbus discovered it on the 27th of October, 1492, but supposed it be a part of the continent. Sebastian de Ocampo ascertained that it was an island in 1508. A body of troops from Hispaniola, 300 in number, under Diego Velasquez, conquered the island in 1511. Havanna, the capital, was built by Velasquez in 1519; taken by the Buccaneers in 1669, and by the English in 1761.

The inhabitants are Catholics. There are two bishoprics. The oldest, that of St. Jago de Cuba, comprehends the eastern half of the island; and was established originally at Baracoa, and afterwards removed to St. Jago. That of Havanna was not erected till 1788. This island was at first a part of the viceroyalty of Mexico. We have not been able to ascertain the year, in which, with Porto Rico, it was erected into a captain-generalship; nor the year, in which Porto Rico was taken from it and made a separate government. A royal audience is established at Principe; and cabildos and other inferior courts in the various towns and villages.

In 1774, the population amounted only to 171,628, including 44,328 slaves, and 5 or 6,000 free negroes. In 1804, there were 234,000 whites, 90,000 free blacks, and 108,000 slaves; in all 432,000.

The number of negroes introduced into Cuba, from 1789 to 1803, exceeded 76,000 souls; and during the last four years of that period, they amounted to 34,500, or to more than 8600 annually.

The men wear the Spanish cloak richly laced. The women wear a petticoat and corset, with an apron of gauze and muslin. They plait the hair, and wear massy bracelets of gold. They have pale complexions, dark, expressive eyes, and graceful forms; but are rarely handsome. Many of them are acquainted with music and embroidery. Riding out in the evening, and attending mass, are their common amusements. The houses are not elegant. The furniture is often gilt, but there are few mirrors, and no carpets. The inhabitants are excessively fond of bull fighting and cock fighting. Balls

are another favorite amusement, and no invitation is necessary. Their funerals are conducted in a most sumptuous manner. The common breakfast is coffee, or chocolate, with *chuleta*, or ribs of fresh pork fried in hog's lard. At dinner a usual dish is *agiaco*, of so hot a seasoning, that a stranger who tastes of it, will shed tears before he is aware. The supper is rice seasoned with salt and lard, broiled fresh, and sallads. Sweetmeats and sugar pressed from the cane are the usual desert, both at dinner and supper. Turtle is the common food on fast days, and is remarkably fine and tender.

The language of the inhabitants is an impure Spanish. Its common appellation is the *Creole-Spanish*. The mode of education adopted is ridiculous. The Aristotlean philosophy is alone taught, and the other branches are much the same as were in vogue during the dark ages. The university at the Havanna was founded in 1774. It has one professor of philosophy, two of theology, and two of Latin. The state of the common schools is deplorable.

The HAVANNA is the largest town. It is on the N. side of the island, about 45 leagues from cape Sable, and 80 coastwise from cape San Antonio. Its harbor is one of the best in the world. The entrance is by a narrow channel half a mile long, difficult of access, and strongly fortified the whole distance, with platforms, works and artillery. The celebrated castle of Moro, fort San Carlos, and fort Diego, also protect the town. No less than 800 cannon are mounted on all the works. The rivers Lagida, and Almendariz, fall into the harbor E. of the town. The harbor is a league in breadth, and capable of receiving 1000 ships of war. It has 6 fathoms of water, and is so safe that vessels ride securely without casting anchor. The damage done by the earthquake of October, 1810, to the shipping at the Havanna, was computed at 600,000 dollars.

The shape of the town is semicircular, the diameter being formed by the shore. It is built on the W. side of the harbor. The squares are irregular, and the streets narrow, some of them are paved with iron wood, which is extremely durable. The houses are disfigured with heavy balconies, and wooden railings, and are by no means elegant. There are 11 churches in the town, all richly ornamented, several monasteries, and 2 hospitals. The arsenal is a superb edifice. The population has been estimated, by an intelligent traveller, at 70,000. A great deal of wealth is collected here. The number of cabriolets is 3000. The commerce of the town is more extensive than that of any other in Spanish America. Provisions are plentiful and cheap.

PRINCIPE is the residence of the audience, and the proper capital. It stands near the centre of the island, and is said to be nearly as large as the Havanna.

BAYAMO, or ST. SALVADOR, is near the S. coast, on a river which empties into a large bay, of the same name, and contains 12,000 inhabitants.

ST. JAGO DE CUBA, farther east than Bayamo, on the same coast, is surrounded by a hilly country, and has a spacious and secure harbor; the entrance being by a channel 2 leagues in length, and de-

sended by a castle. The population is said to amount to 35,000 or 40,000.

SAN CARLOS DE MATANZAS lies about 20 leagues E. of the Havana, has a good port, and 7000 inhabitants.

Holguin, 30 miles E. of Trinidad, and Guiza, contain each 6000.

The commerce of the island is chiefly in the hands of Catalonian merchants. The principal imports are hardware, linen, silk, clocks and watches, wines and spices. The great articles exported are sugar, tobacco, chocolate, coffee, wax, cotton, mahogany, fruits, cattle, and swine. In 1792, the export of sugar was upwards of 2,000,000 arrobas; that of tobacco 120,000 arrobas for the manufactory at Seville, while 14,000 were reserved for the use of the island and the other colonies; that of wax at 20,000, arrobas; and that of cotton, 6000. In that year, 121 cargoes of negroes were imported. Coffee began to be planted in Cuba, after the destruction of the coffee plantations in St. Domingo; and in 1803 it produced about 12,000 quintals, or 18 millions of pounds.

Northern winds alone prevail in November, December, and January, and render the climate cool. They are also the most prevalent during the three following months. It is however the coolness of spring, and not of winter. The weather is very hot the rest of the year. The rains commence in June, and last till October. July and August are the most rainy months. Thunder storms are then almost of daily occurrence, and hurricanes are common. The leprosy was introduced from Carthage, and has made considerable ravages. Syphilis will be a common disease in every tropical Spanish colony. Few of the inhabitants outlive 60. Longer life is generally attended with a loss of the faculties.

The land near the sea is generally level, except in the S. E. part of the island. All the interior is mountainous. The soil is every where very productive. It is doubted whether there is so large a spot of ground on the globe, more fertile than this. There are 6000 plantations, and 3700 farms. Not 100th part of the island is under cultivation. Sugar is now the capital article of agriculture. There are upwards of 600 sugar mills in the whole island. The canes grow to the height of 8 or 9 feet. Cacao is of the next importance. The celebrated tobacco of Cuba attains the height of 5 feet. It is first planted in a nursery, and is transplanted in wet weather, to the plantation. It is thought the finest that grows in America. The best sort is that called *de la vuelta de abaxo*. Coffee is an object of general attention. The quantity of cotton raised is considerable. Ginger, long pepper, mastic, maniac, and aloes, are extensively cultivated. Bees were introduced, by emigrants from Florida, in 1763. They were soon dispersed all over the island. In 1777, 715,000 pounds of honey were exported. The bees wax of Cuba is thought equal to that of Venice. In 1792, there were 1000 herds of cattle, 580 yards for feeding swine, and 700 for cattle, in the island. The cattle and hogs are fine. The island abounds also with horses, mules, and sheep.

The rivers are all short, none of them running more than half of the width of the island. Of bays, that of Bayamo formed by cape de

Cruz is the largest. Xagua bay, one of the best in the West-Indies, is 16 leagues W. of Trinidad, and 5 in circumference. It has a narrow entrance, and is perfectly safe. Honda bay is 30 leagues W. of the Havanna. The most noted capes are, cape San Antonio in the W.; cape Cruz in the S.; cape Maysi in the E.; and cape Yeacos, the most northern land in the island.

A chain of mountains runs from E. to W. from cape Maysi to cape Antonio. The Paps of Managua, a little S. E. of Havanna, are the highest summits. They often look above the clouds. Saddle hill, near Honda bay, is a well known eminence. The course of the ridge thence to cape Antonio is S. W. and its name the High Lands of Buenarista. The Pan of Matanzas near San Carlos, and the Anvil near Barracoa, are landmarks of the sailors.

The cedar of Cuba, is its most valuable tree, and is chiefly used in ship building. The mahogany, ebony, iron wood, granadillo, guaiacum, the palm, and oak, are also abundant. All the fruits of the West-Indies grow in perfection. Great quantities of drift wood are blown on the N. coast in the winter, probably from the mouths of the Mississippi.

The wild boar is still found in the island. Black cattle and hogs fill the forests. The most common birds are the mocking bird, parroquet, turtle dove, partridge, and waterfowl. The *cayman*, or alligator, is less fierce than on the continent. The sting of the scorpion and millipede is cured by rubbing the part with garlic. Snakes abound, but are not venomous. Mulletts and shad are the principal fish. Turtles are very abundant on the coast.

There are mines of excellent copper in the eastern part of the island, which supply the other colonies with domestic utensils.

PINOS, or the ISLE OF PINES, lies S. W. of Xagua bay, about 20 miles from the coast; and is 25 leagues in circumference. It is mountainous, and covered with pines. We do not know whether it is inhabited.

HISPANIOLA, ST. DOMINGO, OR HAYTI.

SITUATION AND EXTENT, HISTORY, ORIGINAL POPULATION, RELIGION, GOVERNMENT, EDUCATION, POPULATION, CHARACTER, CHIEF TOWNS, ROADS, COMMERCE, CLIMATE, FACE OF THE COUNTRY, SOIL AND PRODUCTIONS, RIVERS, LAKES, BAYS, CAPES, &C. MOUNTAINS, MINES.

Situation and Extent.] HISPANIOLA lies between lat. 17 40 and 20° N.; and between lon. 67 35 and 74 15 W. Its length, from cape Engano to cape Tiburon, is 430 miles. Its greatest breadth, from cape Beata to point Isabella, is 160. It contains about 28,000 square miles. The Windward channel separates

it from Cuba and Jamaica. The Mole is about 40 miles from port Maysi; and cape Tiburon 120 miles from point Morant in Jamaica. Cape Engano lies about 80 miles from cape St. Francis, in Porto Rico.

History.] The natives called this island *Hayti*, a name which Dessalines lately revived. Columbus named it *Espanola*, or Little Spain: which, in pronunciation, nearly resembles the *Hispaniola* of the English. Bartholomew Columbus named the town of *St. Domingo* after his father, Domingo Columbus. From the town the name was at length transferred to the whole island. Columbus discovered the island on the 6th of December 1492, on his return from Cuba; and landed the same day, at a small bay, which he called St. Nicholas. Here he left 38 Spaniards and sailed for Spain, Jan. 4th, 1493. This was the first European colony in America. Columbus founded a second town on the N. coast in November of the same year, and called it *Isabella*. His brother Bartholomew founded the town of *St. Domingo* in the S. E. part of the island in 1496, which thenceforth became the capital, and the chief focus of population. Sir Francis Drake pillaged the capital in 1536. The French buccaneers from *Portuga* established themselves on the W. end of the island about the year 1655. About 10 years after, this colony attracted the notice of the French government, which deputed Bertrand Dugeron to transform them into civilized beings. He introduced French women among them, reconciled the idle to labor, and allured new inhabitants to the island. In less than a century after its discovery, *Hispaniola* was in a great measure deserted. The establishment of an archiepiscopal government in the capital, *St. Domingo*, and its being made for many years the seat of civil and criminal jurisdiction in cases of appeal from all the territories of Spain in this part of the world, were the principal means of preserving it.

In 1669, the number of planters amounted to about 1500. Cape François was built by Gobin, in 1670. The culture of the sugar cane was introduced in 1688. The planters, in 1695, made a descent on Jamaica, and carried off a considerable number of negroes. The next year, the English, from Jamaica, plundered cape François, and reduced it to ashes. Spain ceded the western half of the island to France, by the treaty of Ryswick, in 1697. Port au Prince, in 1702, was made the seat of government.

1722, the French colony was freed from the yoke of exclusive trading companies. This was the era of its commencing prosperity. A company was formed at Barcelona, in 1757, to build up the Spanish colony which had always languished; but the decree of Charles III. in 1765, opening a free trade to all the Windward islands, first gave it life and activity. A new line of demarkation was run between the two colonies in 1776.

An alarming insurrection of the negroes broke out, in the French colony in 1791; which deluged half of the northern province in blood. The national assembly, in 1792, proclaimed the political equality of the whites, and free people of color. The commission-

ers of the French government, in 1793, decreed the emancipation of all the slaves in the colony. On the 21st of June, Macaya, a black, at the head of 3000 negroes began an indiscriminate slaughter at cape François. An expedition from Jamaica, in June, 1794, landed at Tiburon, and in a few days captured L'Acul, Leogane, Bigoton, Jean Rabel, and Port au Prince; when the yellow fever drove them off. Rigaud, a mulatto, and Toussaint L'Ouverture, at the head of a body of blacks, immediately occupied the towns the English had deserted; and also retained all the northern province, except the Mole and Fort Dauphin. Spain ceded the eastern part of the island to France, July 22d, 1795, and the Spaniards all withdrew to Cuba and Porto Rico. The English renewed the attack, in 1795 and 1796, and were repulsed by the same disease. Toussaint received the appointment of general in chief, from the French government, in the latter part of 1796. In 1798, the English gave up their designs on the island. The blacks proclaimed themselves independent, July 1st, 1801. General Le Clerc arrived at Samana, Dec. 28th of the same year. During a truce the treacherous Le Clerc surprised Toussaint, his wife, and children, on their plantation, and conveyed them on board a French vessel, to France. He was carried to the island of Elba, and there assassinated by order of Bonaparte, in 1803; though, other accounts say that he fell a victim to close confinement in a French dungeon; but all circumstances taken together throw strong suspicions on his oppressors. Toussaint was the best man, and one of the greatest, whom the French revolution called forth. Dessalines was proclaimed his successor.

By the month of November, 1803, the French troops had lost every place in the island, except Cape François; and, on the 30th of that month, they were obliged to quit the cape, and surrender to an English squadron. The Independence of the island was re-proclaimed, Nov. 29, 1803. Dessalines was invested with the government for life, in May, 1804; and assumed the title of **JACQUES I. EMPEROR OF HAYTI**, Sept. 8. He was killed in a conspiracy, not long afterward. Christophe is his successor, with the title of **HENRY I. KING OF HAYTI**. His court is modelled much on the plan of Bonaparte's. He possesses the N. side of the island, from the Mole to the Spanish boundary. Petion, took the lead of the republican party in opposition to Christophe, and assumed the title of *President of Hayti*. His party consisted chiefly of mulattoes. He occupied the S. side of the island, from cape Tiburon eastward, to the Spanish boundary. The contest between Christophe and Petion has been long and bloody. On the death of Petion, in 1817, Christophe made an effort to unite the two parties; but it was unsuccessful, and the citizens of the S. proceeded to elect BOYER for their President.

A third party sprung up sometime since under Philippe Dos, an elevé of Toussaint. Seated among the populous and fertile mountains of *Mirbalais*, in the centre of the island, near the Spanish frontier, he has adopted a defensive system, pledging himself never

to invade his enemy, till first attacked. The growth of his power has been rapid. The Spaniards, in 1808, assisted by the English, retook the eastern part of the island. St. Domingo is now their capital. They are on friendly terms with the party of Christophe. Their territories enjoyed profound peace, while the western end of the island was torn by contending factions, which, however, have lately in a great measure subsided.

Original Population.] The aborigines went entirely naked, but had made some advances towards civilization. They cultivated maize, and wore gold ornaments. They were governed by 5 caciques, who ruled, each over a different division of the island. According to Columbus, they were the most unoffending, gentle, and benevolent of the human race. To gratify the avarice of the Spanish court, Columbus, in 1495, imposed a tax on all above 14. This occasioned a war, in which many of the natives were destroyed. Ovando, the governor, from 1500 to 1509, nearly exterminated them. To supply their place 40,000 were brought from the Bahamas. An enumeration was made of all the Indians in the island in 1517, when their whole number did not exceed 14,000. They were then sold to the planters; and, by the middle of the 16th century, scarcely 150 remained alive. It ought here to be remarked, that the Spaniards associated with the female Indians, and that the issue of this mixture, called *mestizos*, were free. For a long time they were numerous in the colony, after the pure Indians were exterminated.

Religion.] The established religion in all parts of the island is the Roman Catholic; but Christophe is adopting every lawful means in his power to root it out from his dominions. He tolerates every denomination, and the instructors, employed by him in his schools, are Englishmen of the Episcopal denomination. The principal of the college is an Episcopal clergyman.

In 1816, the Wesleyan Methodists appointed two missionaries, to reside in that part of the island, which was under the presidency of Petion; the special permission of the government having been promptly granted. Methodist missionaries are also established in Christophe's dominions.

Government.] HENRY CHRISTOPHE, the reigning king of Hayti, under the title of HENRY the First, usually resides and holds his court at Sans Souci, a village about fifteen miles from cape Henry, formerly Cape François, where he has built a spacious and handsome palace. He is an absolute monarch. An hereditary nobility forms the first class of his subjects. All the proprietors of landed estates have great authority over the cultivators of the soil, who are held in a species of slavery. They are not at liberty to leave the service of a proprietor at pleasure; but are generally compelled to live on the estate where they were born, or upon that where they or their parents were slaves before the revolution.

The government of the southwestern division of the island is elective. The chief magistrate is styled *President of Hayti*. PETION, the late president, died in 1817, and BOYER was elected to the office.

Various propositions have recently been made by the French government to the independent chiefs of St. Domingo, with a view to bring them back to their former subjection to France. These, however, have all been rejected with disdain.

Education.] Great efforts are now making by king Henry, for the education of his subjects. A royal free school has been established at St. Marks. Twelve public schools have been established in the principal towns in the kingdom, in which several thousand children are receiving a regular education in the English and French languages, and the elements of mathematics, under instructors of approved talents and character, selected by Mr. WILBERFORCE, to whom this important business has been wisely confided by king Henry. The youth in these schools are making very rapid progress in knowledge, and evincing that in their intellectual powers they are not inferior to other nations of different complexion.

At Cape Henry, the capital of the kingdom, there has been established and liberally endowed, a royal college, in which are taught, or to be taught, all the languages, arts and sciences usually taught in European and American colleges. In 1818, there were 40 scholars in the college, who were selected from among the best in the common schools. Besides the above, the king has caused schools to be established in every village in his kingdom, the teachers of which are selected from among the best pupils in the public schools. Indeed no pains or expense are spared by the king, to enlighten his subjects. The New Testament in English and French has been introduced and is read in schools, so that religion and literature are making progress together; and a hope is entertained that in the course of a few years the inhabitants of this kingdom will become evangelized and well informed, and the state of society and manners respectable and polished.*

Population.] The population of the whole island was never exactly ascertained, nor that of the French part, but in one instance. That of the Spanish colony was in the year

1717 18,410

1795 { 110,000 whites and mulattoes } 125,000
 { 15,000 slaves }

1810 { 73,000 whites and mulattoes } 103,000
 { 30,000 slaves }

That of the French colony was in the year

1754 { 14,000 whites } 27,717 whites
 { 4,000 mulat. } 21,808 mulat. } 455,089
 { 172,000 slaves } 405,564 slaves }

1767 206,000 slaves

1775 32,600 whites

1790 { 30,831 whites } 534,831
 { 24,000 mulat. }
 { 480,000 slaves }

That of the whole island was estimated as follows in the year

1797 { 40,000 whites } 520,000 1801 { 42,000 whites } 686,000
 { 28,000 mulat. }
 { 452,000 slaves }

* Professor Oxley's letter Aug. 1818.

The blacks in the French part of the island have greatly diminished since 1801. A few years since, Christophe maintained about 10,000 troops; and had 2 corvettes, 9 brigs, and several schooners, commanded by a white admiral. His ships for a time made some depredations on American commerce. Pétion mustered about 9000 men, but had no fleet. Philippe Dos had more than 6000. The whole physical force of the island must be of some moment, for the French army, under Le Clerc, consisted of 20,000 regular troops; yet the blacks destroyed the greater part of it, and drove the rest out of the island.

Character.] The Spanish colonists were among the most indelible of mankind. The French were distinguished for their industry. Both were extremely vicious. Slavery and the climate had putrified the morals of both colonies. The blacks, who have now entire control over the French part of the island, have the character and manners, which their circumstances have formed. They grew up without instruction, or any knowledge of moral obligation. Previous to the revolution, they were involved in slavery; and since that period they have been engaged in constant quarrels with the whites or with each other. Within a few years however, the manners of the blacks are wonderfully improved. Great efforts have been made, especially by King Henry, to introduce schools and religious instruction among the people. Much good is anticipated from the measures which are now in operation.

Chief Towns.] CAPE HENRY, formerly *Cape François*, before the revolution was the largest town in the west part of the island; and contained between 800 and 900 houses of stone or brick, 8000 free inhabitants, and 12,000 slaves. It lies on a bay on the N. side of the island at the foot of a very high mountain, called *Le Morne du Cap*, about 30 leagues E. of St. Nicholas, and 15 N. E. of Gonaïves. It has an excellent harbor, and its commerce was formerly very great. The duties on exports, in 1789, amounted to \$253,590 37.

PORT AU PRINCE is at the head of the large bay, which sets up on the W. end of the island. It was the seat of government, and had an excellent harbor, but was very unhealthy. In 1790, it contained 600 houses, 2754 whites, and about 12,000 negroes. It had a valuable commerce. The duties on exports, in 1789, amounted to \$189,945 46.

ST. DOMINGO, the capital of the Spanish colony, is about 30 leagues from the E. end of the island, on the W. bank of the Ozama. The harbor is large, but not very secure, and has a rock at the mouth, over which there is only 8 feet water. The streets are straight, and spacious, crossing each other at right angles. Ten run from N. to S. and 10 from E. to W. The houses are built of *tapia*, like those in Caraccas, simple, and uniform. The cathedral is a noble Gothic pile, in which the ashes of Columbus rested, till 1796, when they were removed to the Havanna. There are 3 parochial churches, 3 monasteries, 2 nunneries, and 3 hospitals. The population of the town, about 20 years since, was not less than 25,000. It was estimated at 20,000, in 1810.

ST. NICHOLAS, or THE MOLE, was the first European settlement in America. Its harbor is strongly fortified both by nature and art, and is extremely safe and convenient. This was the healthiest town in the island.

LEOGANE lies on the S. shore of the Bite. Its commerce was extensive. The duty on exports in 1789, amounted to \$26,103.

ST. MARK lies about half way between Port au Prince and Gonaïves, at the head of a bay setting up from the Bite. It was the pleasantest town in the island, and the duty on exports, in 1789, amounted to \$116,974.04.

The other towns in the French colony were Fort Dauphin and Port de Paix on the N.; Petit Goave in the Bite; and Cayes and Jacmel on the S.

MONTÉ CHRISTI, on the N. side of this island, belonged to the Spaniards, and contained 3000 inhabitants. It was a well known resort of smugglers.

Roads.] The roads in the Spanish colony were miserably neglected, and the traveller found no accommodations. The reverse was the case in the other part of the island.

Commerce.] The average amount of exports from the French colony, in the years 1787, 1788, and 1789, and the actual amount in 1791, were as follows :

Average of 3 years.			1791.	
		livres.		livres.
Clayed sugar	lbs 58,642,214	41,049,549	70,227,708	67,670,781
Muscovado	lbs 86,549,829	34,619,931	93,177,512	49,941,567
Coffee	lbs 71,663,187	71,663,187	68,151,180	51,890,740
Cotton	lbs 6,698,858	12,397,716	6,286,126	17,572,252
Indigo	hhds 951,607	8,564,463	930,016	10,875,120
Cacao	lbs ———	———	150,000	120,000
Molasses	hhds 23,061	2,767,320	29,502	1,947,132
Tafia	hhds 2,600	312,000	303	21,816
Raw hides	No. 6,500	52,000	7,887	78,870
Tanned do.	No. 7,900	118,500	5,186	93,348
Tortoise shell	lbs ———	———	5,000	50,000
Guaiacum, acajow and mahogany }	lbs ———	———	1,500,000	40,000
Livres 171,544,666			Livres 200,301,634	
or \$22,030,260			or \$25,723,312	

The amount of duties paid in 1791, was 6,924,166 livres. The imports from France, in 1788, amounted to 86,414,040 livres. The three principal articles were dry goods, wines, and flour. These importations were made in 580 vessels, measuring 189,679 tons. In the same year, 98 French vessels imported from Africa 29,506 negroes, which sold for 61,936,190 livres. The imports from foreign countries, in that year, were 16,538,820 livres, in 1022 small vessels, measuring 71,162 tons; making a total of imports in 1788, of 164,889,050 livres, in 1700 vessels of all descriptions. This is exclusive of the inland trade with the Spaniards.

Of the present commerce of the French part of the island little is known, since the year 1792. It is estimated, however, by Walton, that from 1804 to 1808, about 75 vessels annually arrived at the ports of St. Domingo, with cargoes amounting to about £150,000 sterling.

Climate.] The temperature of Hispaniola does not differ materially from that of Cuba. There is a great number of *esters*, or salt marshes, which render many parts of it unhealthy. The mountains occasion a considerable diversity of climate in the different parts of the island. In the north the rainy season commences in August and ends in April; in the south it lasts from April to October. In May, June, and July, the heats are excessive, the thermometer rising on the plains, to 99°. The English army suffered severely from the yellow fever in 1794, and several following years; and the French army in 1802. The climate is, however, very healthy to the negroes, and will prove a powerful ally to them in case of invasion.

Face of the Country.] A part of the interior is mountainous; but in the eastern part of the island are extensive plains or savannas, occupied by immense herds of swine, horses, and horned cattle. The plain of Cul de Sac, in the W. 40 miles long and 9 broad, lies between Port au Prince and St. Marc. The plain of Cape François extends 20 leagues from E. to W. and on an average 4 into the interior.

Soil and Productions.] The soil, in general, is fertile in the highest degree, well watered, and producing every variety of vegetable for use and beauty. The following tables will exhibit the state and progress of agriculture in the French colony:

Produce of the different plantations.

	1720.	1788.
Sugar lbs.	22,400,000	163,405,500
Indigo lbs.	1,200,000	150,000
Coffee		lbs. 6,289,000
Cacao		lbs. 150,000
Molasses		lbs. 34,453,000

Number of the different plantations &c.

	1754.	1789.	792
Sugar plantations	599		
Indigo plantations	3,379		3,097
Coffee plantations			2,810
Cacao trees	98,946	plantations	69
Cotton plants	6,300,367	plantations	705
Cassia trees	22,000,000		
Horses and mules	63,000		
Horned cattle	93,000		
Banana trees	6,000,000		
Potato plots	1,000,000		
Yam plots	226,000		
Trenches of maniac	3,000,000		
Cultivated acres			2,290,000

Far the greater part of the Spanish province, in 1789, was still a wilderness. At that time they had only 24 sugar works. Their chief business was hunting wild cattle in the plains. About 11,000 head of horned cattle were annually furnished to the French colony, besides great numbers of horses and mules. Immense quantities of hides were also exported.

Rivers, Lakes, Bays, Capes, &c.] The river Yuna, or Yane, flows upwards of 70 miles through the valley of Vega Real, in an E. S. E. direction, and empties into the bay of Samana. It is navigable, 13 leagues, to Cotuy.

The Monte Christi, or the Yaqui, heads near the Yuna; and runs W. N. W. about the same distance, to the bay of Monte Christi.

The Ozama runs in a S. S. E. direction and empties below St. Domingo. It is navigable about 30 miles, and rolls a large volume of water to the sea. For a league it is 24 feet deep, and its banks are 20 feet high. Over a rock at the mouth the depth is but 18 feet. Its water is of a red color, and the Isabella is its largest tributary.

The Nieva or Neybe pursues a course E. of S. to Ocoa bay, and is one of the longest rivers on the island. The Bite, or the Bite of Leogane, is a very large bay, at the W. end of the island, setting up between cape Maria, on the S. and cape Nicholas, or the Mole, on the N. These capes are 40 leagues apart, and the depth of the bay from the former is not less than 50 leagues. The other rivers of note are the Haina and Nigua. These rivers abound with alligators, and turtle. Their courses are short; they are seldom navigable to any distance, and liable to sudden rise.

There is a curious salt lake in the island, near the S. part of the line of demarkation, 22 miles in circuit, in which are lizards, alligators, land tortoises, of large size. The water is deep, clear, bitter, salt, and of a disagreeable smell.

Samana bay sets up at the E. end of the island between cape Samana, on the N. and cape Raphael, on the S. These capes are 7 leagues apart. The bay is 20 leagues long, and, on an average, 5 broad. A breaker sets up from the S. side nearly across the bay, and terminates in a rock, called the *Rebels*, only 800 fathoms from point Bannister, on the N. shore. The passage is very deep, and the bay within affords shelter to any number of vessels. A large triangular bay lies N. of the peninsula of Samana, between cape Cabran and old cape François. Ocoa bay, near the middle of the island, on the S. side puts up between capes Beata and La Catalina.

The peninsula of Tiburon, on the southern side of the Bite, commences at Port au Prince, and runs westward about 150 miles. It widens in the W.; but, in the E. is every where narrow. The peninsula of the Mole reaches 90 miles, and is much broader. The southeastern part of the island is a broad peninsula, between Samana bay and the Caribbean sea, reaching from the Ozama to cape

Engano, 130 miles. The peninsula of Samana extends 40 miles from E. to W. and is narrow.

There is an unusual number of remarkable capes on the island. The Mole is a high bluff in the N. W. Thence eastward are cape François, point Isabella, old cape François, cape Cabran, cape Samana, cape Raphael, cape Engano, cape Espada, La Catalina, cape Beata, point Abacou, cape Tiburon, cape Donna Maria, cape St. Marc, in the Bite, and cape Foux, the S. W. corner of the N. peninsula.

Mountains.] There is an elevated groupe of mountains in the centre, called *Cibao*. It commences at cape Foux, in the N. W. and pursues a S. E. direction across the island, terminating near cape Espada. Three summits near the middle of the range, are said to be about 1000 fathoms above the sea. A western spur from the principal range ends at cape St. Marc, and has only a moderate elevation. A chain in the N. E. called *Monte Christi*, commences at the bay of the same name, and terminates at the bay of Samana.

Immense forests cover the mountains, particularly in the Spanish province. The mahogany, the cedar, the guaiacum, the bitter ash, and the fustic, here flourish and die unmolested. In some places are vast groves of the thatch palm, a tree of singular beauty. Several varieties of the *cactus*, the indigo plant, and a species of red cotton, grow wild in the thickets.

Mines.] Gold mines were wrought for a length of time by the Spaniards. When these were exhausted, which happened about the year 1530, the colony was deserted of most of its inhabitants, and never afterwards flourished. There are two sulphur springs in the island.

In the French part of the island are mines of iron and silver.

JAMAICA.

SITUATION AND EXTENT, DIVISIONS, HISTORY, RELIGION, GOVERNMENT, REVENUES, POPULATION, CHIEF TOWNS, CLIMATE, FACE OF THE COUNTRY, SOIL AND AGRICULTURE, RIVERS, CAPES, MOUNTAINS, FORESTS, &C, MINES, MINERAL SPRINGS, ISLANDS, &C.

Situation and Extent.] JAMAICA lies between lat. 17 40 and 18 30 N.; and between lon. 76 18 and 79 57 W. Its length from Point Morant, in the E. to South Negril, in the W. is 170 miles; its greatest breadth is 60. The number of square miles is estimated by Edwards at 6000, or 3,840,000 acres; but a great part

consisting of high mountains, the surface of which comprises far more land than the base, he allows on that account one-sixteenth more, or 240,000 acres : making a total of 4,080,000. Of these, 1,907,589 had been located by grants of the crown, in 1789.

Jamaica is 30 leagues from Cuba ; 40 from St. Domingo, and 180 from the Musquito shore.

Divisions.] The island is divided as follows :

<i>Counties.</i>	<i>Situation.</i>	<i>Towns.</i>	<i>Parishes.</i>	<i>Villages.</i>
Cornwall	In the west	8	5	6
Middlesex	In the middle	1	8	13
Surry	On the east	2	7	8
Total		6	20	27

History.] The aborigines of the island called it *Jamaica*, and Columbus preserved the name.

He discovered it on his second voyage, on the 5th of May, 1494, and marked it out as an estate for his family. In 1503 on his 4th voyage, he was shipwrecked on the N. coast, and for 8 months suffered many hardships. At length he was relieved and taken off in a private vessel, fitted out at Hispaniola. The property and government of the island was soon after granted, by the king of Spain, to his family ; and his son Diego removed hither and built St. Jago. Admiral Shirley, in January, 1597, invaded the island and plundered it. About 40 years afterwards, it was again plundered by a party of English, under Col. Jackson. In May, 1695, an English expedition, under Penn and Venables, conquered the whole island. Ever since that time it has been in possession of the English. The runaway negroes had become so numerous and powerful in 1738, that governor Trelawney thought it necessary to make a treaty with them, and assign them a considerable tract of land.

The aborigines of the island, were early destroyed by the Spaniards.

Religion.] The bishop of London claims this, and the other British West-Indies, as a part of his diocese ; but his jurisdiction is renounced and barred by the laws of Jamaica. The governor, as head of the provincial church, inducts into the various rectories ; and is likewise vested with the power of suspending disorderly clergymen. The 20 parishes contain 18 churches and chapels. Each parish is provided with a rector, and other church officers. There are 4 Moravian, 3 Baptist, and 6 Methodist missionaries in the island. The missionaries have been heretofore much harassed by the Colonial Assembly ; which has, however, of late relaxed its rigid opposition. The number of members in the Methodist society is 3207, of whom upwards of 500 were added during the year 1816.

Government.] The captain-general of the island is usually a nobleman of high rank, and is appointed by the crown. His stated salary is 5000*l.* ; but the perquisites are very great. The whole is not less 10,000*l.* sterling. The legislature consists of a council of

12, nominated by the crown, and holding their places during life ; and of a house of assembly, 43 in number, elected by the freeholders. The parishes of Kingston, St. Jago, and Port Royal send each 3, and the other 17 parishes 2 each. A member must have a freehold in the island of 300*l.* per annum, or a personal estate of 3000*l.* ; and an elector a freehold of 10*l.* per annum. A bill becomes a law, as soon as the governor's assent is obtained. If the royal disapprobation is afterwards officially signified, it ceases to be valid. The governor is chancellor of the island ; and sole ordinary for the probate of wills and granting letters of administration. He is also a high court of appeals in all capital cases, and has the sole power of pardoning. The governor and council constitute a similar court in civil cases, where the matter in dispute exceeds 300*l.* ; and likewise a court of errors. The supreme court, for the whole island, consists of a chief justice, and 4 puisne judges. All these are kept at St. Jago. Other important offices are those of register in chancery, receiver general, treasurer, naval officer, and collector for the port of Kingston. Most of these offices are held primarily as sinecures, by pensioners of the crown in England ; and are executed by their deputies in Jamaica. Not less than 30,000*l.* is annually remitted by the various subordinates to their principals.

Revenues.] The revenues of the island consist of a *perpetual revenue* according to the law of 1728, amounting to 12,000*l.* of which 8000*l.* are appropriated ; and of *annual funds*, provided by the legislature, amounting to 70,000*l.* of which about 40,000*l.* is a provision for the troops stationed on the island. The contingent expenses, exclusive of the appropriations, in 1788, exceeded 75,000*l.* The estimated value of all the property in the island, in 1787, was as follows :

Plantations and their stock	£25,000,000
Slaves at 50 <i>l.</i> per head	12,500,000
Property in towns and in vessels	1,500,000

Sterling £39,000,000

Population.] The estimates of the population of Jamaica, in 1787, and in 1811, are as follows :

	1787.	1811.
Whites	30,000	40,000
Maroons	1,400	
Free negroes	10,000	
Slaves	250,000	
		350,000
Total	291,400	390,000

The number of whites, in 1811, we believe not to be overrated, as the great increase in the commerce of the island has lately occasioned a considerable emigration from Great Britain. The number of blacks of all descriptions was estimated, in 1800, at 300,000. The prospect of the abolition of the slave trade occasioned, for several years, a prodigious increase in the annual importation of slaves. The present number of blacks, of all descriptions, must be at least as great as we have stated it.

The number of regular troops in the island is always considerable. The militia are computed at 8000. A respectable naval force is usually on the coast.

Chief Towns.] **ST. JAGO, ST. JAGO DE LA VEGA, OF SPANISH-TOWN**, stands on the river Cobre, 6 miles from its entrance into Port Royal bay. In 1788 it contained between 5 and 600 houses, and 5000 inhabitants. The palace of the governor general is a superb edifice.

KINGSTON lies on the N. side of a beautiful harbor, opening into Port Royal bay, about 20 miles S. of E. from St. Jago. It was founded in 1693, when repeated desolations, by earthquakes and fire, had driven the inhabitants from Port Royal. It contained, in 1788, 1655 houses, beside negro huts and ware houses; and 6,539 whites, 3280 free blacks, and 16,659 slaves; in all 26,478. Many of the houses are magnificent, and the markets are excellent. Since the surrounding country has been cleared of wood, the town has been very healthy.

MORTEGO BAY, in Cornwall, in the N. W. is an opulent, flourishing town, and in 1788 contained 225 houses, of which 33 were capital warehouses.

PORT ROYAL stands near the extremity of a peninsula, which bounds Port Royal bay, on the S. E. It is about 10 miles S. from Kingston; and, after St. Jago, is the oldest town in the island. It contains about 200 houses, a royal navy yard, the navy hospital, and barracks for a regiment of soldiers. The fortifications are kept in excellent order, and are among the strongest in the British dominions.

SAVANNA-LA-MAR, in the S. W. contains about 60 houses.

FALMOUTH is a very flourishing town in the N. W.

Climate.] The climate of the coast is hot and sultry, with little variation from January to December. This is particularly true of the south coast, where the average temperature, from June to November, inclusive, is 80°, and but little cooler in the other six months. On the tops of the mountains the general state of the thermometer is from 55° to 65°. It has been observed as low as 44°.

Face of the Country.] In the north of the island, the country, at a small distance from the shore, rises into hills, which are more remarkable for their beauty than boldness; being all of gentle acclivity, and commonly separated from each other by spacious vales, and romantic inequalities; but they are seldom craggy, nor is the transition from the hills to the vallies oftentimes abrupt. In general the hand of nature has rounded every hill, towards the top, with singular felicity. This part of the island is well watered, and presents a vivid and delightful verdure. In the south the cliffs are rough and precipitous. The narrow vallies between, however, are susceptible of fertility; and at the foot of the lower range of hills lie vast plains or savannas, bounded only by the ocean, and displaying all the pride of the richest cultivation.

Soil and Agriculture.] The number of acres in the island has already been mentioned, as amounting to 4,080,000. Of these only 1,907,589 had been located in December, 1791. Even all of this

is not improved. The lands in cultivation were then distributed nearly as follows:

767 sugar plantations, averaging 900 acres each	690,000
1000 pens, or breeding and grazing farms, at 700 each	700,000
Plantations of cotton, coffee, pimento, ginger, &c.	350,000

1,740,000

Edwards supposes that the remaining acres amounting to 2,340,000 are chiefly unfit for cultivation; not merely on account of the barrenness of the soil, but principally on account of its mountainous situation. Indeed, almost all of the waste land is represented by him, as covered by a rich, strong growth of timber. The land actually cultivated has a deep and very fertile soil. Sugar is the capital object of agriculture. Two thirds of each plantation are usually reserved for timber, fire wood, and pasturage. Unfortunately, the planters pay but little attention to manuring their lands, or to a judicious rotation of crops. Raising cattle is the object of next importance, and after these indigo, coffee, cotton, pimento, and ginger. There is now a number of cinnamon plantations on the island. Maize is cultivated to a considerable extent, and yields two crops in a year of from 15 to 40 bushels the acre. Guinea corn produces but one crop. It is sowed in September, and reaped in January, and yields from 30 to 60 bushels. Various kinds of *calavances*, a species of pea, are cultivated; and a small quantity of rice. *Guinea grass* is a most valuable vegetable. It thrives in some of the most rocky parts of the island, bestowing fertility on lands otherwise incapable of cultivation. Most of the breeding and grazing farms have originated from its introduction, which happened about 60 years ago, and the cattle raised on it are equal to those in the English markets. *Scotch grass* is an aquatic plant, grows to the height of 5 or 6 feet, with long succulent joints, and is of very quick vegetation. No other species of grass is equally prolific. From a single acre 5 horses may be maintained a whole year, allowing 56 pounds of grass a day to each. Cabbages, lettuce, carrots, turnips, parsnips, artichokes, kidney beans, peas, asparagus, and various other European herbs are in the utmost abundance. The indigenous vegetables are chocho, ocra, Lima bean, Indian kale, plantain, banana, yam, *calaloe*, (a species of spinach,) eddoes, cassava, and sweet potatoe.

Rivers.] Black river is the deepest and largest in Jamaica. It runs southwardly, is navigable for flat bottomed boats and canoes about 30 miles, and empties about 20 W. of Pedro bluff, in the S. W. part of the island.

The Coke is a small river, running by Spanishtown.

The Rio Bueno is on the north side of the island.

Capes, Mountains, Forests, &c.] Point Morant, or East Capo is the eastern extremity of Jamaica in lon. 76 10 W. and is the usual point of departure for ships bound through the windward passage. Portland Point is the most southern cape; and South-Negril the most western.

A ridge of lofty mountains, called the Blue mountains, traverses the island from E. to W. The main ridge is considerably nearest

the southern shore, and its southern front is generally rough and craggy. The descent on the northern side, is more easy and gradual. Several lower ridges, parallel with the principal one, lie on the S. side of it; the summits of which are more round and smooth. The Blue mountain Peak, in the main ridge, is 7431 feet above the level of the sea.

Numerous groves of pimento are found every where on the hills, on the N. side of the island. The mountains are, in general, covered with excellent timber, such as *lignumvitæ*, dog wood, iron wood, pigeon wood, green heart, braziletto, and bully tree; most of which are so heavy as to sink in water. Of softer kinds for boards and shingles the species are innumerable. There are many beautiful varieties calculated for cabinet work, among others the bread nut, wild lemon, and mahogany.

Perhaps no country in the world affords so rich a variety of excellent fruits, indigenous and exotic. The *anana* or pine apple, tamarind, papaw, guava, two species of sweet sop, cashew apple, custard apple, cocoa nut, star apple, grenadilla, avocado pear, hog plum, and its varieties, pindal nut, nesbury, mammec, mammec sapota, Spanish gooseberry, and prickly pear, are all indigenous. The orange (Seville and China,) the lemon, lime, shaddoc and its numerous species, the vine, melon, fig, and pomegranate, were probably introduced by the Spaniards. The peach, strawberry, rose apple, and genip, are also cultivated. The apple does not attain to great perfection except on the highest mountains.

Mines.] The Spaniards are said to have opened mines of silver and copper; but none are now wrought. A lead mine, of considerable value, was wrought some years since in the parish of St. Andrew, but the high price of labor compelled the proprietors to relinquish it.

Mineral Springs.] The most important mineral spring is that in the parish of St. Thomas, in a village called Bath. The water flows out of a rocky mountain, about a mile distant. Its temperature is 123° of Fahrenheit. The water is sulphureous, and has been used with great advantage in that dreadful disease of the climate, the *dry belly ache*. There are other springs, both sulphureous and chalybeate, in various parts of the country.

Islands, &c.] The island of *Great Cayman* is equidistant from Jamaica and Cuba, and 55 leagues from each. It is inhabited by descendants of the old buccanners, about 160 in number. Their chief business is piloting, and fishing for turtle. The soil is good, and the climate healthy.

The two *Little Caymans*, N. E. of this, are not inhabited.

Pedro shoals, or the *Bivora bank*, lie S. of the western half of Jamaica, extending upwards of 30 leagues from E. to W. The *Ciscabel* is a rock at the W. end; *Pedro keys* are near the middle; and the *Portland rock*, at the E. end, is 10 leagues S. of *Portland point*.

PORTO RICO.

PORTO RICO is situated between lat. $17^{\circ} 54'$ and $18^{\circ} 30' N.$ and between lon. $65^{\circ} 30'$ and $67^{\circ} 45' W.$ It is 115 miles long from E. to W. and has a mean breadth of 36; containing about 4140 square miles. Its shape is nearly that of a parallelogram.

Columbus gave the island its present name of *Porto*, or *Puerto Rico*. The natives called it *Boriquen*.

The island was discovered by Columbus on his second voyage, in 1493. Juan Ponce explored it in 1508, and effected a settlement in 1510. Within a few years the island was subdued, and the natives soon became extinct. Ponce founded the town of St. Juan de Porto Rico, in 1514. The earl of Cumberland took and plundered the island in 1697, but it was soon given up. The Dutch plundered the capital in 1615; and the English made an unsuccessful attack on the island, in 1797.

Porto Rico is a captain-generalship. Originally, with Cuba, it was a part of the viceroyalty of Mexico; then it was attached to the government of Cuba; and finally made a distinct province.

The number of inhabitants, in 1778, was 80,660. In 1793, the population received a large accession from St. Domingo, most of the Spanish inhabitants of that island removing hither. It is now estimated at 200,000.

ST. JUAN DE PORTO RICO, the capital, is on the N. side, about 15 leagues W. from cape St. Juan. It stands on a small island, in a spacious bay, and is connected with the main land by a causeway of considerable length. The harbor is spacious and safe, and admits vessels of any burden. The entrance is less than half a mile wide. The town is large and well built, and is the see of a bishop. It stands near the head of the harbor on the E. side, and contains about 30,000 inhabitants. The fortifications are strong and commanding. It was long the chief seat of the English contraband trade, and is considerably populous. The town is surrounded by three walls.

Hurricanes are not unfrequent. That of 1742, was remarkably destructive. The country is pleasantly diversified with hills and vallies. The soil is generally fertile. In 1778, there were on the island 5861 plantations and farms of every description. These were then stocked with 23,195 horses, 1515 mules, 77,384 horned cattle, and 49,958 sheep and swine. The produce for that year was 2737 quintals of sugar, 1163 of cotton, 19,556 of rice, 15,216 of maize, 7458 of tobacco, and 9860 of molasses.

The farms are well stocked with poultry, and the woods abound with parrots and wild pigeons.

Cape St. Juan is the N. E. extremity of the island, cape Mala the S. E. and cape Roxa the S. W. Cape St. Francis is the termination of a promontory on the W. end not far from the N. side, and point Bruquen the N. W. extremity of the island.

CARIBBEAN ISLANDS.

THIS range extends from lat. 9 30 to 18 45 N.; and from lon. 59 30 to 65 20 W. The form of the range is the arc of a circle, commencing at Trinidad, the most southern; and bending N. E. and then N. W. to Bieque, or Crab island, the most western.

The Atlantic is on the E. and the Caribbean sea on the W. The Mosquito shore, the western coast of the Caribbean sea, lies 500 leagues W. of the middle of the range. The Cape Verd islands, on the African coast, lie 35 degrees of longitude, or 780 leagues to the eastward, in the same parallels.

These islands have already been mentioned, as consisting of 2 groupes; the *Leeward islands* in the N.; and the *Windward islands* in the S.

The earliest inhabitants of this numerous groupe were Arrowauks; tribes of the same nation, which occupied the Greater Antilles. At a period, however, long before the discovery of America, this peaceful nation had been chiefly exterminated by the *Caraibes*, *Caribs*, or *Caribbees*, a warlike and ferocious people from the continent. Rochefort conjectures that they came from Florida, but this is clearly a mistake; for, in the first place, the remoteness of that country, and the difficulty of the voyage, render it wholly improbable; and in the next place, the identity of name and language, and their own traditions, prove that they came from South-America. The coast of the continent, between the Amazon and Oronoko has long been possessed by *Caraibes*. Sir Walter Raleigh found them in Spanish Guiana, near the Oronoko in 1595; and Depons says, that they still occupy all the coast of that province. Bancroft, in 1769, says that they then possessed all the coast of Dutch Guiana, which the Dutch had not occupied. Raleigh also says, that they spoke the same language with the *Caraibes* of Dominica. The *Caraibes* of the islands, according to Edwards, also declared that their fathers came from Guiana, and exterminated the ancient inhabitants; but took possession of their women and their lands.

The *Caraibes*, therefore, must be considered, like the Mexicans, as one of the great nations of the continent.

The *Caraibes* of these islands lived in villages that had the appearance of a European encampment. Their cabins were built of poles fixed circularly in the ground, and drawn to a point at the top. They were then covered with the leaves of the palm tree. In the centre of each village was a building larger than the rest, which served as a public hall, or state house; wherein the men, excluding the women, had their meals in common. These halls were also the theatres, where their young men were animated to emulation, and trained to martial enterprise by the renown of their warriors, and the harangues of their orators.

Though not as tall as the generality of Europeans, their frames were robust and muscular ; their limbs flexible and active ; and their eyes possessed a penetrating quickness and wildness, that seemed an emanation from a fierce and martial spirit. Their natural complexion was that of a Spanish olive. Their hair was uniformly of a shining black, straight and coarse. They dressed it daily with care, and decorated their heads with feathers of various colors. The incipient beard was always carefully eradicated. They had a strange practice of altering the natural form of the head in infancy. On the birth of a child, its tender and flexible skull was confined between two small pieces of wood, applied before and behind, and firmly bound together on each side. This elevated the forehead, and occasioned it and the back part of the skull, to resemble two sides of a square. Both sexes painted their faces and bodies with *arnotto*, so as entirely to conceal the natural olive under a surface of crimson. They disfigured their cheeks with deep incisions, and hideous scars, which they stained black ; and painted black and white circles round their eyes. Some of them perforated the cartilage, that divides the nostrils, with a fish bone, a parrot's feather, or a piece of tortoise shell ; and their warriors strung together, and wore on their arms and legs, the teeth of their enemies whom they had slain in battle. The women wore a buskin or half boot made of cotton on the small of the leg. In other respects both sexes went naked.

They manufactured extensively a substantial cotton cloth, and stained it of various colors, but most commonly red. Of this they made *hammocks*, or *hanging beds* ; both the name and invention of which Europe has borrowed of the Caraiibes. Their vessels of clay were baked in kilns, like the pottery of Europe ; and were thin, smooth, and handsome. Their baskets, of the fibres of the palmetto leaf, were singularly elegant ; and their bows, arrows, and other weapons had a neatness and polish, which the most skilful artist could with difficulty rival. It seems probable that here, as in South-America, there was no division of land, and only imperfect ideas of private property ; that cultivation was carried on by the joint labor of each separate community ; and the harvest deposited in a public granary, whence each family received its proportion of the common stock.

Polygamy universally prevailed. The women were treated as slaves rather than as companions. They sustained every species of drudgery ; ground the maize, prepared the cassava, gathered in the cotton, and wove the *hammock* ; nor were they allowed to eat in the presence of their husbands. Under these circumstances it is not wonderful, that they were less prolific than the women of Europe. This oppression of the female sex is undoubtedly to be ascribed chiefly to the savage character of the tribe ; but perhaps partly, also, to the facts, that when the original Arrowauks were exterminated, their women were preserved, and that in all their wars the captured females were reserved as wives for the conquerors. Hence women were looked upon in some measure as prisoners and enemies. The nation is said even to have spoken two languages ; one common to both sexes, which retained many words of the primitive Arrowauk ; the other a language only of the men, employed

in their public councils, and their martial addresses. This last was the proper Caribbean tongue.

The education of their youth was intended chiefly to prepare them for battle. To draw the bow with unerring skill, to wield the club with strength and dexterity, to swim with agility and boldness, to catch fish, and to build a cottage, were acquirements of indispensable necessity. But their capital instructions were lessons of prudence and fortitude; of courage in war; of contempt of danger and death; and of implacable hatred towards the Arrowauks. On the birth of a male child, he was immediately sprinkled with drops of his father's blood. While a boy he witnessed the butchery of prisoners, partook of the horrid feast, and was often anointed with the fat. On the arrival of manhood he received from his father and others, in a public assembly, a series of long continued and cruel scourgings. The least symptom of weakness disgraced him forever. If he rose superior to pain, and baffled the attempts of his persecutors, he received a new name, was pronounced a man, and ranked among the defenders of his country. Torments more excruciating; stripes, burning, and suffocation, were the test for him who aspired to lead his countrymen to battle. In war the strictest subordination was enforced; in peace the most absolute equality prevailed, except that the old men had a kind of advisory authority.

This education inspired lofty sentiments, and an abhorrence of slavery. It prompted them also to almost constant warfare abroad. They very frequently invaded the islands of the Arrowauks (the Greater Antilles) and brought home prisoners; whom they reserved for food. The love of glory was their ruling passion. Notwithstanding their practice of polygamy and the voluptuousness of their climate, an insensibility to love was a characteristic of the Caribbees. They despised all the manufactures of the Spaniards, except fire arms; of these they felt and confessed the superiority to their own weapons. Among themselves they were peaceable; and towards each other faithful, friendly, and affectionate; but all strangers were considered as enemies.

On the birth of a first son, the father retired to his bed, and fasted with a strictness that often endangered life; but this ceremony was immediately followed by drunkenness and debauchery. On the death of a relation they despoiled their hair; and when the master of a family died, the survivors, after burying the corpse in the centre of his own dwelling, with many demonstrations of unaffected grief, quitted the house altogether, and erected another in a distant situation. On the death of a hero, captives were sacrificed.

They believed in a future state. To the souls of their heroes they allotted a sort of Mahometan paradise. Cowards were doomed to everlasting banishment behind the mountains, to unremitting labor, and to captivity and servitude among the Arrowauks. They entertained an awful sense, (perplexed indeed and indistinct) of one great and universal cause; of a superior, wise, and invisible being of absolute and irresistible power. They admitted also the agency of subordinate divinities, and supposed that each individual had his

own tutelary deity. Each cottage had its own *lares* and *penates*; and in each a rustic altar was erected, composed of banana leaves and rushes, on which they occasionally placed their earliest fruits, and the choicest of their viands, as peace offerings, through the mediation of their inferior deities, to incensed Omnipotence. Their devotions consisted less in the effusions of thankfulness, than in the deprecations of wrath; for they regarded the Divine Being as infinite indeed in power, but severe in his justice, and inexorable, in his anger. This probably was owing to the tremendous irregularities of nature, so dreadfully frequent in their climate. They believed likewise in demons and evil spirits, and offered them, by the hands of their *boyez*, or pretended magicians, sacrifice and worship: wounding themselves on such occasions with the teeth of the *agonti*. To these demons they ascribed the calamities of daily occurrence, and all the troubles, which hourly embitter life.

A few remains of the nation are scattered over various parts of the Caribbean Archipelago. But in Spanish and Dutch Guiana they still remain a formidable body, sufficiently numerous to repel the aggressions of the colonists, and possessing the proud independence, the invincible love of liberty, and the ferocious courage, which so strongly characterized their ancestors.

LEEWARD ISLANDS.

The islands thus denominated extend from lat. 15 15 to 18 45 N.; and from lon. 60 55 to 65 20 W. On the S. Dominica is the most remote; on the E. Desada; on the N. Anegada; and on the W. Bique or Crab island. This last is only 3 leagues from Porto Rico, one of the Greater Antilles; and Dominica is but 10 from Martinique, the most northern of the Windward islands.

The Virgin islands, Anguilla, St. Martin's, Saba, St. Eustatius, Barbuda, St. Christopher's, Nevis, Antigua, and Montserrat, all constitute a single colonial government, under a governor general.

VIRGIN ISLANDS.

This is a small groupe lying E. of Porto Rico, between lat. 17 40 and 18 45 N.; and between lon. 64 10 and 65 20 W. The extreme island on the N. and E. is Anegada; on the S. Santa Cruz; and on the W. Bique.

Of these islands the Spaniards claim Bique or Crab island, Serpent island, Great and Little Passage island, the Tropic keys, and several other small islands lying contiguous to Porto Rico. These islands are attached to the government of Porto Rico and are of no consequence.

The following is a list of the other islands with their dependencies.

- | Islands. | Dependencies. |
|-----------------------------|--|
| 1. St. Thomas | { Brass, Little Saba, Great St. James, Little St. James, and Bird islands. |
| 2. St. John | Lavango, Cam, and Witch islands. |
| 3. Santa Cruz or St. Croix. | |

in their public councils, and their martial addresses. This was the proper Caribbean tongue.

The education of their youth was intended chiefly to prepare them for battle. To draw the bow with unerring skill, to wield the club with strength and dexterity, to swim with agility and boldness to catch fish, and to build a cottage, were acquirements of indispensable necessity. But their capital instructions were less prudence and fortitude; of courage in war; of contempt of danger and death; and of implacable hatred towards the *Arru*. On the birth of a male child, he was immediately sprinkled with drops of his father's blood. While a boy he witnessed the cry of prisoners, partook of the horrid feast, and was often associated with the fat. On the arrival of manhood he received from his father and others, in a public assembly, a series of long and cruel scourgings. The least symptom of weakness disqualified him forever. If he rose superior to pain, and baffled the attempts of his persecutors, he received a new name, was pronounced brave, and ranked among the defenders of his country. Torments, stripes, burning, and suffocation, were the means by which he was trained; him who aspired to lead his countrymen to battle. In war the most absolute subordination was enforced; in peace the most absolute authority prevailed, except that the old men had a kind of moral authority.

This education inspired lofty sentiments, and an abhorrence of slavery. It prompted them also to almost constant warfare. They very frequently invaded the islands of the *Arru* (the Greater Antilles) and brought home prisoners; whom they used for food. The love of glory was their ruling passion, notwithstanding their practice of polygamy and the voluptuousness of the climate, an insensibility to love was a characteristic of the *Sp*. They despised all the manufactures of the *Sp*. They valued fire arms; of these they felt and confessed the superiority of their own weapons. Among themselves they were perfectly faithful, friendly, and affectionate, but towards the *Arru* they were considered as enemies.

On the birth of a first son, the father retired to his cave with a strictness that often endangered life; but this was immediately followed by drunkenness and dissipation, and the death of a relation they despoiled their hair. If a member of a family died, the survivors, after burying the dead, set fire to his own dwelling, with many demonstrations of grief, and then quitted the house altogether, and erected a new habitation. On the death of a hero, captives were taken.

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MARTIN'S.

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These three islands belong to Denmark.

4. Tortola { Jost, Van Dyke's, Little Van Dyke's, Guano,
Beef, and Thatch islands.
5. Virgin Gorda { Anegada, Nicker, Prickly Pear, Mosquito, Cam-
anoes, Dog, Fallen City, Round Rock, Ginger,
Cooper's, Salt, Peter's, and Dead Chest islands.

Tortola and Virgin Gorda with their dependencies belong to the English.

Columbus discovered these islands in 1493, and named them *Las Virgines* or *The Virgins*. The Dutch buccaneers took possession of them in 1648, and were driven out by a stronger party of English buccaneers, in 1666. The crown first constituted the English islands a distinct government in 1773. The first assembly met at Tortola, Feb. 1, 1774.

In 1817, the Moravians had 6 missionaries at Santa Cruz, and 2 at St. Thomas. At the same period the Wesleyan methodists had 3 missionaries at Tortola and Virgin Gorda, and 1792 members, of their society.

These islands are many of them very dangerous to navigators. There is a basin, however, between Virgin Gorda, Tortola, and St. Thomas, called *Sir Francis Drake's Bay*, 7 leagues long and 4 broad; in which ships may anchor, and be sheltered and landlocked from all winds.

TORTOLA. This island is 15 miles long, and 6 broad, and but a short distance N. of St. John. The country is mountainous, but under high cultivation. It is one of the healthiest islands in the West-Indies, and has a large and safe harbor. *Sandy Bay* and *Road Town*, are the two principal settlements, both well fortified. This is the most valuable of the Virgin islands, except Santa Cruz.

VIRGIN GORDA. The English call it *Penniston*, and corruptly *Spanishtown*. It is 8 miles E. of Tortola, and is 15 miles long, from S. W. to N. E. It is badly watered, and has few inhabitants. A mountain in the centre of the island is affirmed to contain a silver mine. *Anegada*, the largest of its dependencies, is low, and almost covered by water at high tides.

The following is a list of the exports from Tortola and Virgin Gorda, and their dependencies, in 1787 :

Sugar	cwt. 79,203
Rum	galls. 21,417
Molasses	galls. 2,011
Cotton	lbs. 289,077
Dying woods (value)	£ 6,651 2 6
Other articles (value)	£ 2,340 18 5

The whole value of the exports of that year was £.166,959 12s. 6d. and the various articles were carried in 40 vessels, measuring 6316 tons, employing 436 men.

ST. THOMAS. This island is 9 miles long from E. to W. and 3 broad; and 12 leagues E. of Porto Rico. It has a safe and commodious harbor, guarded by a single fort. The town lies W. of the harbor, is built chiefly on a single street, and has convenient warehouses. Most of the houses are of brick, but of one story. It has

been a well known resort of smugglers. Sugar, tobacco, potatoes, millet, and maniac are the chief objects of cultivation. The soil is sandy, and is badly watered.

ST. JOHN. This is 5 miles long and 1 broad, and 2 leagues E. S. E. of St. Thomas. It is well watered, and has a harbor, called *Crawl Bay*, the best between Antigua and Porto Rico. The soil is indifferent, and the exports trifling.

SANTA CRUZ. The French call it *St. Croix*. It is 30 miles long, and 9 broad; and lies 21 leagues S. E. of cape Mala, in Porto Rico, and 12 S. of St. John. Columbus discovered it. The Spaniards, English, and Dutch were by turns masters of it for a long period. In 1651, it was bought for the knights of Malta, who sold it, in 1664, to the French West-India company; and by them it was ceded to Denmark, in 1696. It is in a state of high cultivation. Its population is estimated at 3000 whites and 20,000 negroes. The soil is very fertile. The annual produce of sugar has been from 30,000 to 40,000 hhds. and other West-India commodities in proportion.

	Imports.	Exports.
1809	£435,378	£84,964
1810	422,033	89,949*

SPANISH ISLANDS. *Bique or Crab island* is 3 leagues from Porto Rico. It is 14 miles in circumference, has a rich soil, and a good road for shipping on the S. *Colubra* is of about equal size, lies 4 leagues N. of Bique, half way between Porto Rico and St. Thomas, and 5 leagues from each. *Great Passage island* is 12 miles E. of Porto Rico, and between the other two. It is about 7 miles long and 2 wide. *Little Passage island* is in its neighborhood. The *Tropic keys* are a collection of rocks, a little W. of Great Passage island.

ANGUILLA.

Anguilla or Snake island was so called from its winding, tortuous shape. It is about 30 miles long, and 6 broad; and lies 25 leagues E. by S. of Virgin Gorda, and 50 from Porto Rico. The climate is healthy, and the inhabitants strong and vigorous. The exports, in 1770, amounted to near 6000*l.* in sugar, rum, and cotton. Maize is cultivated extensively.

ST. MARTIN'S.

St. Martin's is 15 miles long from S. W. to N. E.; 12 broad; and 5 S. of Anguilla. The Spaniards settled it early, but abandoned it in 1650. The French then took possession of the northern half; and the Dutch of the southern. The English plundered the French division in 1689, and took possession of it in 1744, and of the whole island soon after the late subjugation of Holland. Tobacco is the chief article of cultivation. But the island is principally valuable on

* Edinburgh Gaz.

account of its salt pits. There is a good harbor at the N. W. end of the island.

ST. BARTHOLOMEW.

This is a small island, not more than 24 miles in circumference, and 5 leagues S. E. of St. Martin's. It was first peopled in 1648, by Poincy, the French governor of St. Christopher. Admiral Thornhill plundered it in 1689. It was not restored to France till 1697. For a long period after, it was a mere nest of privateers. France ceded it to Sweden, in 1785. The population has greatly increased since that time. It is estimated at 30,000. The men are robust, but the women are feeble and indolent, and are usually attended by slaves to fan them, and keep off musquitoes and flies. The houses are made of wood; some are raised upon pillars so that the wind passes under them. The windows are mere openings in the sides, with windowshutters, or lattices. The shores are dangerous, and cannot be approached without a good pilot. The only port is *Le Carenage*, on the west side, near which stands *Gustavia*, the sole town in the island. *Le Carenage* has excellent moorings, but admits no vessels drawing over 9 feet water. *Gustavia* is a considerable town inhabited by Swedes, English, French, Danes, Americans, and Jews. The planters are chiefly French. The bay of Colombieu is deeper, but has no town. The chief exports are drugs, cotton, lignumvitæ, and iron wood. Provisions are procured from the United States.

Hurricanes prevail from the middle of July, to the middle of October. The natives live generally to old age, and are subject to but few diseases. The island is mountainous. The soil is indifferent. Only a small part of it is fit for cultivation. Cotton succeeds well, and is the chief object of agriculture. Tobacco and cassava are also cultivated. Aloes hedges inclose the plantations, and are impenetrable. There is not a river, lake, or spring, in the island. Fresh water is procured from cisterns, and when they fail, from St. Christopher, at 12 livres per ton. It abounds with valuable woods. The most in esteem are the iron wood, lignumvitæ, aloes or soap tree, calebac, canapia, whose gum is an excellent cathartic, parotane, whose boughs take root and form a natural shelter, and the sea tree, whose boughs are plaited together and look as if they were glazed. The forests abound with birds. It furnishes the neighboring islands with a peculiar kind of limestone.

It is said that this island has been sold by Sweden to Russia, possession to be given in December 1818.*

SABA.

Saba is 12 miles in circumference, and 30 S. W. of St. Bartholomew. The Dutch long possessed it, but the English took it in 1781. The inhabitants are chiefly Dutch. It has no port. The

* *Centinel.*

access to it is by a road cut out of the rock, by which only one man can mount at a time. The island is a delightful plain, producing necessaries for the inhabitants, and materials for several manufactures, the chief of which is aloes. They have scarcely any commerce and little intercourse with the rest of the world.

BARBUDA.

Barbuda is 20 miles E. S. E. of St. Bartholomew, and is 20 miles long, and 12 broad. It was planted soon after the English settled St. Christopher. It belongs to the Codrington family, to which it produces 5000*l.* a year. The revenues arising from this island, and from several other plantations were bequeathed by a member of the Codrington family, to the society for propagating the gospel. The inhabitants, about 1500 in number, are employed chiefly in agriculture. There is no harbor, but a well sheltered road on the west side. The land is low, but fertile. Maize, pepper, indigo, and fruits, with cattle and fowls, are the chief productions. There are various species of serpents, some of which are extremely venomous. *Sombrera*, a little island, 20 leagues N. N. W. of Anguilla, is a dependency of Barbuda.

ST. EUSTATIUS.

St. Eustatius is 4 leagues S. E. of Saba, and 3 N. W. of St. Christopher. It is a huge pyramidal rock, rising out of the waves, 29 miles in circumference. The Dutch settled it about the year 1600. The English took it in 1665, and the French soon afterwards, who restored it to the Dutch, in 1667. The English retook it in 1689, and restored it in 1697; took it again in 1781, and restored it in 1783. It fell into their hands again in 1809, and was restored in 1814. It contains about 5000 whites, chiefly Dutch, and 15,000 negroes. There is but one landing place, and that strongly fortified. Tobacco is the principal product, and after that sugar. Cattle and poultry are exported in considerable quantities. The sides of the mountain are laid out in plantations and settlements. The top is a plain of some extent, surrounded by woods. In the hands of the Dutch it was, for its size, one of the most productive islands in the West-Indies. The Wesleyan Methodists have a missionary on this island.

ST. CHRISTOPHER.

This island is 20 leagues W. S. W. of Barbuda, is 42 miles in circuit, and contains 43,726 acres, or almost 70 square miles. Its length from S. E. to N. W. is 18 miles, and its common breadth about 4. The southeastern and much the smallest division is connected with the body of the island by a narrow isthmus, half a mile over. It is divided into 9 parishes, and contains 4 towns. The natives called it *Liamuga*, or the *Fertile island*; Columbus was so pleased with its appearance, that he called it after his own name

St. Christopher; and the sailors, by a well known abbreviation, call it *St. Kitts*. Columbus discovered it in 1493. It was first settled by the English in 1623. The French also attempted a settlement in 1625. In 1627, the two colonies divided the island. The Spaniards invaded them both two years afterwards, and drove off the French and a part of the English, both of whom resorted to Tortuga. The French drove the English out in 1664. They returned in 1667, and were driven out again in 1689. The treacherous conduct on the part of the French, occasioned a war between the two nations. After 8 months possession, by the French, general Codrington took the island, and transported all the French to Martinico and Hispaniola. Half of the island was restored to France, in 1697; but taken from them in 1702. A French armament plundered it in 1705, but the whole was finally ceded to England in 1713, and the French possessions publicly sold for the benefit of the English government. A powerful French armament took the island after a most gallant resistance in 1782, but it was restored the following year.

The *Caraiibes* lived on friendly terms with the first colonists, and supplied them with provisions. After the arrival of the French, the two colonies, pretending apprehensions of a conspiracy, fell upon them, and murdered about 120 of their stoutest men. The young and handsome women were reserved as slaves and concubines. The rest of the savages withdrew to the neighboring islands, and spread the alarm. A large body of them came over soon after, and killed about 100 of the Europeans. They then quitted this, and the neighboring small islands, and retired southward.

This island contributes 1000*l* currency towards the salary of the governor general. The council of the island consists of 12 members, appointed by the crown. The president of the council, is lieutenant governor, and acts as governor in absence of the governor general. The house of assembly consists of 24 members, chosen by the people. A member must have a freehold of 40 acres of land, or a house worth 40*l*. a year; an elector, a freehold of 10*l*. a year. The superior court consists of a chief justice, with a salary of 600*l*. and 4 puisne judges. The population, in 1791, was 4000 whites, 26,000 slaves, and 300 free blacks: in all 30,300. The militia consists of all white men, from 16 to 60, composing two regiments of foot, about 300 in each; and of a company of free blacks. A small number of regular troops is now stationed on the island. In 1816, there were two Moravian and 4 Methodist missionaries, and 3000 members of the Methodist society, in this island.

Basseterre, the capital, is on the S. W. coast, at the mouth of a river opening into a bay, called Basseterre road. It contains 800 houses, and is defended by three batteries. Sandy point, also on the W. side, is defended by two batteries. Old road has from 5 to 15 fathoms.

The produce of *St. Christopher*, in 1787, was exported in 200 vessels, measuring 23 155 tons, and employing 1590 men; and consisted of 235,528 cwt. 2 qrs. 12 lbs. of sugar, 334,609 galls. of rum, 8154 of molasses, 518 lbs. of indigo, 484,640 lbs. of cotton,

dying woods in value 5989*l.* 1*s.* 6*d.* and other articles, in value 33,456*l.* 19*s.* 4*d.*; making a total value of 510,014*l.* 0*s.* 5*d.* In 1809, the official value of the imports was £266,064 and of the exports £132,845.

The interior of the island consists of many rugged precipices and barren mountains. Near the shore, the country is level. Of the 43,726 acres, 17,000 are devoted to sugar, and 4000 to pasturage. Cotton, indigo, and provisions, occupy but little, probably not more than 2000 or 3000. The rest of the island is unfit for cultivation. The soil is better suited to the production of sugar, than that of any of the West-Indies. It is a dark grey loam, light and porous, apparently the black, ferruginous pumice of the naturalists, incorporated with a pure virgin mould. This rests on a stratum of gravel, from 8 to 12 inches deep. Clay is found only at a considerable height on the mountains. Particular spots have been known to yield 8000 lbs. of Muscovado, (or 5 hhds. of 16 cwt. each,) to the acre. A whole plantation has yielded 4 hhds. to the acre. The general average produce, for a series of years, for the whole island was 16,000 hhds.; which, as only half the cane land, or 8,500 acres, is cut annually, gives nearly 2 hhds. of 16 cwt. as the average acre crop for the island. That of Jamaica, on the contrary, is not more than $\frac{1}{4}$ of a hhd. There are several rivers here, and the island is tolerably well watered. Mount Misery, the loftiest summit, rises 3711 feet above the level of the sea. It is evidently a decayed volcano. There is an immense crater on the top; the bottom of which is nearly level, and has an extent of 50 acres, of which 7 are covered with water. The rest are clothed with high grass and trees, among which the mountain cabbage is conspicuous. The woods on the mountains are inhabited by a small species of monkey; troops of which come down to devour the canes, and do inconceivable mischief.

NEVIS.

This beautiful little spot is nothing more than a single mountain, rising like a cone in an easy ascent from the sea; the circumference of its base not exceeding 24 miles. It is only 2 $\frac{1}{2}$ miles S. E. of St. Christopher. The island is divided into 5 parishes. Columbus called it *Nieves*, or *The Snows*, probably from its resemblance to a mountain in Spain of that name. It was settled by English emigrants from St. Christopher, in 1628. The French took it in 1706, and restored it in 1713; retook it in 1782, and surrendered it the following year. The council consists of 7 members. The president acts as governor in the absence of the governor general. The house of assembly consists of 15 members, 3 from each parish. There is one court, consisting of a chief justice, and two assistants; and also an office of registry of deeds. The population consists of about 1000 whites, and 10,000 negroes. All white men, not exempted by age or decrepitude, are enrolled in the militia, among which there is a troop of 50 horse. There were 2 Methodist missionaries, and 142 members of the Methodist society on this island, in 1816.

The capital, Charlestown, is on the west side of the island. Here is the principal fortification. The commandant is appointed by the crown, and paid by the island. Indian Castle and New Castle are two other shipping places.

The country is well watered, and the land in general fertile; except a little near the summit, which answers for yams and other vegetables. The soil is stony; the best is a loose black mould, on a clay. The average produce of sugar is 1 hhd. of 16 cwt. per acre. There are about 8000 acres of cane land, of which half are cut annually, and 4000 hhds. is the annual crop. The island was undoubtedly produced by a volcanic explosion; for there is a crater near the summit still visible, which contains a hot spring, strongly impregnated with sulphur. Sulphur is frequently found in substance in the neighboring gullies and cavities of the earth.

ANTIGUA.

Antigua is 16 leagues E. of Nevis, and 18 E. by S. of St. Christopher. It is 50 miles in circumference, and contains 59,838 acres, or 93½ square miles. It is divided into 6 parishes, and 11 districts, and contains 6 towns and villages. The natives called it *Jamaica*, a word in the language of the *Arrowauks*, signifying a country abounding in springs; but evidently of a different meaning in that of the *Caraibes*, for there is not a spring or rivulet of fresh water on the island. Columbus named it *Santa Maria de la Antigua*, after a church in Seville. He discovered it in 1493. In 1632, it was first planted by a few English families. Charles II. granted it to lord Willoughby, in 1663. Three years afterwards, it was ravaged and plundered by a French armament from Martinico, cooperating with a body of *Caraibes*. It was resettled by the English from Barbadoes, in 1674, under Mr. Codrington, who was that year appointed governor general of the then British Leeward islands. In 1710, the inhabitants rose *en masse*, and put to death the governor general, a Mr. Park, who for 4 years and a half had acted the part of a Nero in this little domain.

The governor general usually resides here. The council consists of 12 members, appointed by the crown. The president is governor in the absence of the governor general. The house of assembly consists of 25 members. The population, in 1774, consisted of 2590 whites and 37,808 slaves, besides free negroes. In 1817, according to official returns there were 2102 whites, exclusive of the troops; 2185 free blacks and people of color; and 31,452 slaves: total 35,739. The military establishment consists of 2 regiments of infantry, 2 of foot militia, 1 squadron of dragoons, and 1 battalion of cavalry.

The inhabitants of this island deserve great credit for their kind treatment of their slaves. They have for a long time permitted the Moravian missionaries to instruct them. The legislature was the first to come forward with laws meliorating their condition. There were in 1816, 5 Moravian, and 4 methodist missionaries, in Antigua.

and 3177 members in the Methodist connexion. Much has been recently done by the establishment of Sunday, and other schools under the patronage of the Church missionary society, for the moral improvement of the island.

St. John's, the capital, is built on an excellent harbor on the W. shore. The entrance is defended by fort James. It is the largest and most commercial town in the whole government. Parham on the N. side has a fine harbor, is regularly built, and fortified. Falmouth, on the S. side, has a good and well fortified harbor. Willoughby Bay, Old Road, and James Fort, are the names of the other villages.

The produce of the island, in 1787, was exported in 233 vessels, measuring 28,663 tons, and manned by 2048 seamen; and consisted of 284,526 cwt. 1 qr. 18 lbs. of sugar, 716,546 galls. of rum, 5910 of molasses, 26 lbs. of indigo, 160,510 of cotton, dying woods in value 4,142*l.* 6*s.* 6*d.* and other articles in value 48,006*l.* 10*s.* 3*d.*: making a total value of 592,596*l.* 15*s.* 8*d.* In 1809 and 1810, the official value of the imports and exports was as follows:

	Imports.	Exports.
In 1809	£198,121	£216,000
1810	285,458	182,392

The island is generally level. There are two kinds of soil; one a black mould, on a stratum of clay, naturally very rich and productive, but injured by drought; the other a stiff clay, on a stratum of marl, and abounding with an uncradable species of grass, which impoverishes the land, and overpowers every other vegetable. Many estates, in consequence of this, have been necessarily converted to pasture, or entirely abandoned. Of the 59,838 acres, 34,000 are appropriated to sugar. A small part is unimprovable, and some has been deserted. The rest is devoted to cotton, tobacco, and pasture. Only half of the cane land is cut annually. The average crop is about 17,000 hhds. of 16 cwt. or 1 hhd. to the acre. In 1787, the quantity exported amounted to 17,883 hhds.

MONTSERRAT.

This is the most southern island under the governor general, and is 7 leagues S. E. of Nevis, and 8 S. W. by W. of Antigua. It is 9 miles each way, and contains about 30,000 acres, or nearly 47 square miles. It is divided into 4 districts. Columbus called it *Montserrat*, after a mountain of the same name in Spain. He discovered it in 1493. It was first settled by English emigrants from St. Christopher, in 1632. The French plundered it in 1712, and took it in 1782, but restored it the year following.

It pays 400*l.* as its part of the salary of the governor general. The council consists of 6 members; and the assembly of 8, two from each district. In 1648, there were 1000 white families on the island, constituting a militia of 360 effective men. The population, in 1791, was 1300 whites, and 10,000 negroes. In 1805, there were 1000 whites, 250 people of color, and 9,500 slaves. The produce of Nevis and Montserrat united, in 1787, was exported in 122 vessels, measuring 10,287 tons, and manned by 904 seamen; and consisted

of 110,284 cwt. 0 qr. 21 lbs. of sugar, 289,076 gallons of rum, 1315 of molasses, 140 lbs. of indigo, 92,472 of cotton, dying woods in value, 352*l.* 7*s.* 6*d.* and other articles in value, 1363*l.* 3*s.* 5*d.*: making a total value of 214,141*l.* 16*s.* 8*d.*

Almost two thirds of the island are mountainous or barren. Of the cultivated land, about 1000 acres are appropriated to sugar, 2000 to cotton, 2000 to provisions, and 2000 to pasturage. The average crop for 4 years, 1784—1787, was 2737 hhds. of sugar of 16 cwt. 1107 puncheons of rum, and 275 bales of cotton.

GUADALOUPE.

Guadaloupe consists really of two islands, divided by a short and narrow channel called the *Salt river*. That part of the island, which lies N. E. of this channel is called *Grande Terre*, and is 14 leagues long, from S. E. to N. W. and 6 broad. The S. W. division is called *Basse Terre*, and is 12 leagues long, from N. by W. to S. by E. and 10 broad, in the widest part. A promontory about 2 leagues wide reaches from the N. E. part of Basse Terre, about 3 leagues towards Grande Terre, and is only separated by the Salt river. This channel opens on the N N. W. into a large bay, called the *Grand Cul de Sac*; and, on the S. S. E. into the *Petit Cul de Sac*. Its northern mouth is 300 feet over; but in some places the breadth of the channel does not exceed 90. No vessels of more than 50 tons burthen can pass through it, though in various places there is sufficient depth for ships of 500 tons. The channel is a clear, smooth stream above 2 leagues long.

Columbus gave it its present name, from the resemblance of its mountains to those of Guadaloupe, in Spain. He discovered it in 1493. The French first settled the island in 1635. The English took it in 1759, and restored it in 1763; retook it in 1794, and lost it in the latter part of the same year. In 1810, it again fell into their hands. In 1813, the English gave it to Sweden. In 1814, however, by the consent of Sweden, it was restored to France.

It contained in

1700	$\left\{ \begin{array}{l} 3,825 \text{ whites} \\ 325 \text{ free bl.} \\ 6,725 \text{ slaves} \end{array} \right\}$	10,875	1779	$\left\{ \begin{array}{l} 13,261 \text{ whites} \\ 1,382 \text{ free bl.} \\ 85,327 \text{ slaves} \end{array} \right\}$	99,970
1755	$\left\{ \begin{array}{l} 9,643 \text{ whites} \\ 41,140 \text{ slaves} \end{array} \right\}$	50,783	1788	$\left\{ \begin{array}{l} 13,466 \text{ whites} \\ 3,044 \text{ free bl.} \\ 85,461 \text{ slaves} \end{array} \right\}$	101,971

In 1807, according to an official statement published at Paris, the whole population of the island was 110,000.

The white inhabitants are almost wholly of French descent. A few *Caraibes* still remain on the island, but they have lost all the characteristics of their nation.

Basse Terre is the name of a seaport on the S. W. coast, regularly built and defended by a citadel.

The exports from Guadaloupe to France, in the years 1767 and 1775, were as follows:

	1767.	1775.
	quintals.	quintals.
Sugar	164,021	188,386
Coffee	34,205	63,029
Cotton	11,955	5,193
Cacao	456	1,024
Indigo		1,438
Ginger	1,884	

Beside Campeachy wood, hides, confections, liqueurs, and ratifia, The value of the imports and exports, in 1767 and 1788, was as follows :

	Imports.	Exports.
1767	livres 4,523,884	7,103,838
1788	francs 5,362,000	15,053,000

A range of mountains runs from N. to S. through Basse Terre. The country E. of it is called *Capesterre*. There is a sulphur mountain in Basse Terre of considerable height, which has various small craters, and is often on fire. The copayla balsam, milk shrub, moubane tree, corbary, cinnamon tree, aloes, sandal-wood, and the various tropical fruit trees, are found on the island, *Old Fort point* is the S. cape of Basse Terre; and *Gros Morne* the N. W. *Antigua Point* is the N. W. cape of Grande Terre; *North Point* the N. E.; and *Point Chateau* the S. E.

DESEADA.

This island is 12 miles N. E. from point Chateau, in Guadaloupe. It is 12 miles long, and 6 broad. As it was the first land made by Columbus, in his second voyage, he named it *Deseada* or *the desired land*. The French call it *La Desirade*. It is a very modern colony. In 1788, it contained 213 whites, 33 free blacks, and 619 slaves: total 865. There is no regular town. The soil is sandy, but yields some coffee and cotton.

MARIGALANTE.

Marigalante lies 5 leagues S. of Guadaloupe. It is of a circular form, 14 leagues in circumference. Columbus named it after the ship in which he sailed. He discovered it in 1493. The French settled it in 1647. The Dutch took it twice. The English took it also in 1691, 1759, and in 1808. The eastern coast is defended by high rocks. The western is flat, and the island generally fit for cultivation. There are 2 parishes. The principal town is in the S. and is defended by a fort called *Basse Terre*. Its annual produce is stated at 1,000,000 lbs. of sugar, 800,000 of coffee, and 100,000 of cotton.

DOMINICA.

Dominica is 10 leagues S. S. E. of Old Fort Point, in Guadaloupe. It is 29 miles long, and 16 broad; and contains 186,436 acres, or

291½ square miles. Columbus called it *Dominica*, because he discovered it on Sunday, November 3d, 1493. It was included, with many others, in the earl of Carlisle's patent, dated June 2d, 1627. Various abortive attempts were made to settle it, by the English. By the treaty of Aix la Chapelle, in 1748, England and France agreed that Dominica, St. Vincent, St. Lucia, and Tobago should remain neutral, and in the unmolested possession of the Caribes. In 1759, the English claimed the island. A number of French subjects had previously planted it. In 1763, France ceded the island to England. An expedition from Martinico conquered it in 1778, but it was restored in 1783.

The governor has a salary of 1300*l.* sterling. The council consists of 12 members, and the house of assembly of 19.

The population in 1788, consisted of 1236 whites, 445 free blacks, 14,967 slaves, and 20 or 30 families of Caribes: making a total of about 16,800. In 1805, there were 1,594 whites, 2,822 people of color, and 22,083 slaves; in all 26,499 souls.

Roseau, the capital, is in the S. W. part of the island, on a point of land, which has Woodbridge's bay on the N. and Charlotteville bay on the S. It extends about half a mile in length, from the latter to Roseau river, and a quarter of a mile in breadth, containing, in 1788, 500 houses besides negro cottages. Upwards of 500 houses were burnt by the French, in 1778.

The white inhabitants of the island are more than half French, and are catholics. In 1816, there were 710 members of the Methodist society, and 1 Methodist missionary on this island. The Caribes are quiet and inoffensive, speak a language of their own, and a little French. They live chiefly by fishing and fowling, and are very expert marksmen. They make beautiful baskets of silk grass, and of the bark of trees.

The produce of the island, in 1787, was exported in 162 vessels, measuring 18,126 tons, and manned by 1,814 men; and consisted of 71,302 cwt. 1 qr. and 21 lbs. of sugar, 63,392 galls. of rum, 16,803 of molasses, 1,194 cwt. 3 qr. 2 lbs. of cacao, 18,149 cwt. 3 qr. 6 lbs. of coffee, 11,250 lbs. of indigo, 970,816 lbs. of cotton, 161 cwt. of ginger, and other articles in value 11,912*l.* 10*s.* 9*d.*: making a total value of 302,987*l.* 15*s.* The value of the imports and exports in 1809 and 1810, was as follows:

	Imports.	Exports.
In 1809	£315,584	£161,291
1810	282,002	39,686

The island contains many high and rugged mountains, interspersed with fine vallies. The soil, in the interior, is chiefly a light brown mould, which appears to have been washed from the mountains. Near the coast it is a rich black native earth, well adapted to every kind of culture. The under stratum is in some parts a yellow brick clay, in others a stiff terrace, but generally stony. Coffee is the great object of agriculture. In favorable years the island has produced 3,000,000 lbs. There are 200 coffee plantations, and only 50 of sugar. The island is well watered, and contains more than 30

fine rivers besides rivulets. Several of the mountains exhibit unextinguished volcanoes ; which frequently discharge vast quantities of burning sulphur. Various mineral springs are found among them. In some places the water is hot enough to boil an egg.

WINDWARD ISLANDS.

These lie between lat. 9 30 and 14 50 N. and between lon. 59 30 and 62 W. Martinico is the most northern, Barbadoes the most eastern, and Trinidad the farthest S. and W.

MARTINICO.

Martinico lies 10 leagues S. S. E. of Point Cachacrou, in Dominica, and is 50 miles long, from N. W. to S. E. ; generally about 16 broad ; and 140 in circumference. It is divided into 28 parishes, and contains about as many towns and villages. The natives called the island *Madanina*. French emigrants from St. Christopher, settled it in 1635, and in a little while extirpated the natives. The English took the island, in 1762, and restored it the following year ; retook it in 1794, and restored it in 1802. In 1810 it again fell into their hands, and in 1814, it was again restored to France.

The population was in the year

1700	$\left\{ \begin{array}{l} 6,597 \text{ whites} \\ 507 \text{ free bl. \& sav.} \\ 14,566 \text{ slaves} \end{array} \right\}$	21,660	1776	$\left\{ \begin{array}{l} 11,619 \text{ whites} \\ 2,892 \text{ free bl.} \\ 71,268 \text{ slaves} \end{array} \right\}$	85,779
1770	$\left\{ \begin{array}{l} 11,588 \text{ whites} \\ 2,524 \text{ free bl.} \\ 71,142 \text{ slaves} \end{array} \right\}$	85,254	1788	$\left\{ \begin{array}{l} 10,603 \text{ whites} \\ 4,851 \text{ free bl.} \\ 73,416 \text{ slaves} \end{array} \right\}$	88,870

In 1807, according to an official statement published at Paris, the population was 86,000.

PORT ROYAL, the capital, is on the W. coast, on a large bay, forming one of the best harbors in the West Indies. The French ships of war in these seas always wintered here. The streets are straight, and the houses well built. The citadel cost 325,000*l.* sterling.

ST. PIERRE, also on the W. coast, but farther N. is a port of entry, and the most commercial town in the island. It contains about 2000 houses and 12,000 inhabitants. The houses are on a side hill, are all white, and make a beautiful appearance in the bay. The bay is of a circular shape, and easy of access, but unsafe in storms.

The commerce of the island, in 1769 and 1788, was as follows :

	Imports.	Exports.
1769	sterling £ 588,412	£ 536,631
1788	1,195,115	1,201,875

Of the imports, in 1788, 763.95*l.* were from France, and 431,156*l.* from other countries. The exports of 1769 employed 202 vessels. The capital articles were 189,695 quintals of sugar, 68,518 of coffee, 11,731 of cacao, 6048 of cotton, 2518 of cassia, 783 hhds. of rum, 307 of molasses, besides indigo, sweetmeats, chocolate, snuff, rope-

yarn, liqueurs, dying wood, and hides. A part of the imports were always sent to the Spanish Maine.

The island is very uneven, and intersected in all parts by hills, which are chiefly conical. The soil is generally very good. Tobacco and cotton were at first the objects of cultivation; arrowroot and indigo soon followed. Sugar was introduced in 1650, and cacao, in 1660, but it did not become general till 1684, when chocolate became a favorite drink in France. All the cacao trees died in 1718, and the coffee tree was substituted a few years after. The well known snuff, called *Macouba*, is made of tobacco, that grows in the parish of *Macouba*, in the N. E. corner of the island. The country is well watered; some of the streams are pure and sweet; others are unfit for drinking; and the inhabitants are obliged to depend on the clouds. The *Galion*, the largest river, is in the N. E. There are three mountains that rise above the other hills. Mount Pelee, in the W. is the highest, and is obviously an extinguished volcano. The lands in the neighborhood consist chiefly of pumice, in lumps, or powder. A small quantity of freestone is found; but blocks of lava are generally substituted. Lime is made of madre-pores and sea shells. Point *Macouba* is the N. E. cape, and Point *Salines* the southern.

ST. LUCIA.

St. Lucia lies 9 leagues S. of Martinico. It is 32 miles long, from N. to S. and 12 broad. There are 9 parishes; 8 on the W. side, and but 1 on the E. The island was discovered on St. Lucia's day. The English first settled here about 1635. The Carabes, in 1638, assisted by the French, drove them off. The French then settled it, but were all massacred by the Carabes in 1654. Various unsuccessful attempts were afterwards made by both nations to plant it, but the natives retained it. In 1748, France and England agreed that it should remain neutral, and in the possession of the natives. The French, however, began to occupy it in 1756, and in 1763, it was ceded to France. The English took it in 1779, and restored it in 1783; retook it in 1794, and restored it in 1802. Early in the late war it again fell into their hands, and has never since been restored.

There is here an English governor, but we know not how the government is organized.

The population of the island was in the year

1769	{	2,524 free pers.	}	12,794	1776	{	2,397 whites	}	14,199
		10,270 slaves					1,050 free bl.		
							10,752 slaves		

Little Carenage bay is on the W. side, and is the best harbor in all the Caribbean islands. It is large and deep, has an excellent bottom, is free from worms, and is perfectly safe, even in hurricanes. Nature has here formed 3 careening places, which do not want a key, and require nothing but a capstern to turn the keel

above ground. The exports, in 1769, amounted to 112,000*l.* ster*l.* The soil is generally good, and the climate healthy. The hills, in the E. are not so high as to intercept the sea breeze. Sugar, cotton, cacao, and coffee, are the produce. Two of the hills, being very round and steep, are called the *Pin's Heads*, and were once volcanoes. *Gros Cap* is the N. cape of St. Lucia, and *Moulacique Point* the southern.

ST. VINCENT.

St. Vincent lies 8 leagues S. S. W. of St. Lucia; and is 24 miles long from N. to S. and 10 broad; containing about 84,000 acres, or $131\frac{1}{4}$ square miles. It was discovered on St. Vincent's day, January 22d, and was included in Willoughby's government, in 1672. The English made several unsuccessful attempts to settle it. In 1685, a slave ship, from the *Bite of Benin*, in Africa, with a cargo of *Mocoë's* negroes, was wrecked on *Bequia*, a little island, 2 leagues south of St. Vincent. Thither they soon went over, and were made slaves by the *Caraibes*. Finding their numbers increase, their masters came to a resolution to kill all the negro male children; on which the blacks rose in a body, and had the advantage. The *Caraibes* afterwards occupied the northern half of the island, and the blacks the southern. By the accession of runaway slaves from Barbadoes, the blacks became so numerous, that they drove the *Caraibes* into the northwest corner of the island. The French, from Martinico, in 1719, attacked the negroes, at the request of the Indians, and were very roughly handled. The English met with the same success, in 1723. In 1763, the number of the negroes amounted to 2000; while, of the *Caraibes*, there were only 100 families; and, in 1791, they were chiefly extinct. The island was ceded to England in 1763. The ministry then undertook to exterminate the blacks, but the military officers remonstrated, and the plan was given up. In 1773, a treaty of friendship was formed between his majesty and the chiefs of the negroes. In 1779, the island was taken by a body of troops from Martinico. The negroes assisted the invaders; but when the island was restored, in 1783, the government forgave them.

The English part of the island includes 23,605 acres, and is divided into 5 parishes. The blacks claim about as much. The rest is incapable of cultivation. The governor's salary is 2000*l.* sterling. The council consists of 12 members, and the house of assembly of 17. The military force consisted, in 1791, of a regiment of infantry, a company of cavalry, a black corps, and 2 regiments of foot militia. The population in 1788, amounted to 1450 whites, and 11,853 negroes, exclusive of the independent blacks. These have long been called the *Black Caraibes*, partly because there was an actual intermixture, and principally because they adopted most of the Caribbean customs, particularly that of flattening the forehead. There is here a noble botanic garden of 30 acres

in extent, containing all the native plants and a vast variety of exotics.

There were in 1816, 3 Wesleyan Methodist missionaries, and 2940 members of their society upon the island. The prospects of the mission are very encouraging. There are several small islands in the neighborhood, some of them containing upwards of 1000 inhabitants which have no Christian teacher nor any public worship.

KINGSTON, the capital, is built on a bay, on the southwest coast, to which it gives name. There are 3 other villages. In 1780, the only church in the island was blown down. The produce of the island, in 1787, was exported in 122 vessels, measuring 12,636 tons, and manned by 969 men; and consisted of 65,028 cwt. 1 qr and 27 lbs. of sugar, 88,266 galls. of rum, 9656 of molasses, 634 cwt. 1 qr. and 5 lbs. of coffee, 761,880 lbs. of cotton, 143 cwt. 0 qr. 24 lbs. of cacao and other articles, in value 2,591*l.* 1*l.*s.; making a total value of 186,450*l.* 14*s.* 8*d.*

The country is very generally rugged and mountainous. Of the 84,000 acres in the island, about 47,000 are fit for cultivation, and are improved by the English and the black Carabes. The remaining 37,000 are unfit for agriculture. The soil of the good land is a fine mould composed of sand and clay, and well fitted for sugar. The country is every where well watered. Tarratee Point is the north cape, and cape Rabishi the southern.

Bequia island lies 2 leagues S. of St. Vincent, and contains 3700 acres. It has a fine harbor called Admiralty bay. *Union* contains 2150 acres; *Canouane* 1777; and *Mustique* 1203. About 1400 negroes are employed in their cultivation. The little isles *Petit Martinique*, *Petit St. Vincent*, *Mallereau*, and *Balleseau* also produce a little cotton.

BARBADOES.

Barbadoes lies 28 leagues E. of St. Vincent, and 26 E. S. E. of St. Lucia; being the most eastern of all the West-Indies. It is 21 miles long from N to S. and 14 broad, containing 106,470 acres, or about 166½ square miles. It is divided into 5 districts, and 11 parishes, and contains 4 towns. It received its name from the Portuguese, who discovered it on their voyages to Brazil. An English ship, in 1605, took possession of it in the king's name. At that time the Carabes had chiefly or wholly abandoned it. The first colony was planted in 1624, and Jamestown founded. In the civil wars the inhabitants took part with Charles I. They were however conquered, in 1651, by the parliamentary troops under Ayscue, and deprived of their government.

The governor has a salary of 2000*l.* sterling. The council consists of 12 members, and the house of assembly of 22. The governor and council constitute the court of chancery; and the governor sits with the council in their legislative capacity. In this

island the courts of grand sessions, common pleas, and exchequer, are distinct.

Barbadoes is said, in 1670, have had a population of 50,000 whites, and 100,000 blacks. This is doubtless exaggerated, though the island was then far more populous than at present. The number of whites, in 1734, was 18,295; and of negroes, in 1753, 69,870. The population, in 1786, was 16,167 whites, 838 free blacks, and 62,115 slaves; total 79,120. The number of slaves, in 1792, was 64,330, making an increase in 6 years of 2215; in which time 3970 were imported; so that the deaths in 6 years exceeded the births, by 1755, or 292½ annually.

According to returns made to parliament in 1811, the population consisted of 16,289 whites, 3392 people of color, and 62,258 slaves; in all, 81,939 souls.

The average amount of the taxes for 7 years, (1786—1792) was 9531*l.* 5*s.* 8*d.* This was exclusive of the 4½ per cent on all exported produce, a most oppressive and impolitic regulation. This sum was raised by a capitation tax on negroes, a tax on sugar mills, houses, carriages, and imported wines.

There is a college at Bridgetown, founded by Col. Codrington, the only one in the British West-Indies. It has not flourished.

An alarming insurrection of the blacks broke out in Barbadoes, in 1816, which was suppressed with the loss of many lives. It is worthy of remark, that very little has ever been done in Barbadoes towards the instruction of the negroes. The efforts for this purpose have met in this island with more than usual resistance. By the last returns there were only 54 persons, members of the Wesleyan Methodist society, and one Methodist missionary. There were in 1816, two Moravian missionaries.

Bridgetown, the capital, is in the southwest part of the island, at the head of Carlisle bay. This bay is a league and a half long, and a league broad, convenient and safe, but the rocks at the bottom are apt to cut the cables. It has numerous wharves for loading and unloading, and is well defended by 4 forts. The streets are paved, and the houses lofty and well built. St. Michael's church is a noble edifice. The governor has a country villa 1 mile northeast of the town. The number of houses is about 1500, and of inhabitants, 12,000. The town has often been destroyed by fires and hurricanes. The adjacent country is low and flat. A regular monthly packet plies between Barbadoes and England. *Jamestown* and *Speightstown*, both on the west coast, and *Charlestown* or *Ostines*, are the names of the other three towns.

The produce of the island, in 1787, was exported in 243 vessels, measuring 26,917 tons, and manned by 1942 men; and consisted of 137,766 cwt. 0 qrs. 16 lbs. of sugar, 415,489 galls. of rum, 13,489 of molasses, 5561 cwt. 2 qrs. 18 lbs. of ginger, 2,705,975 lbs. of cotton, 245 cwt. 0 qr. 5 lbs. of fustic, and other articles to the value of 46,124*l.* 7*s.* 11*d.*; making a total of 539,605*l.* 14*s.* 10*d.* The official value of the imports and exports in 1809 and 1810, was as follows:

	<i>Imports.</i>	<i>Exports.</i>
In 1809	£288.412	£450.760
1810	311,400	271,597

This island has suffered most severely from hurricanes. That of October, 1780, destroyed 4326 lives, and property to the amount of £1,320,564 15s. sterling. Almost all the land is under cultivation. The soil of the hills is a chalky marl; that of the plains and low grounds a fine black mould, somewhat reddish in the shallow parts; and that near the sea generally sandy. No soil in the West-Indies, except the prime lands of St. Christopher, is better adapted to the cane, than the black mould of Barbadoes. The Barbadoes tar is a well known production of this island. High point is the north cape, and Fisher's point the southern. *The Coblers* are a collection of rocks, which flank the southeastern coast.

GRENADA.

Grenada lies 20 leagues S. S. W. of St. Vincent, and 36 from cape Three points, in Venezuela. It is 24 miles long from S. S. W. to N. N. E. and 12 broad; containing about 80,000 acres, or 109½ square miles. It is divided into 6 parishes, and Carriacou forms a seventh. Columbus named it after Grenada in Spain. He discovered it in 1498. Du Parquet, governor of Martinico, settled it in 1650. In a short time he contrived a quarrel with the natives, and completely exterminated them. The history of his campaign in Grenada, as given by his panegyrist, Du Tertre, contains a series of fraud, treachery, cruelty, and murder, which would have gained him distinction among the heroes of La Vendee. In 1655, Du Parquet sold the island to Count Cerillac; and he, some years after, to the French West-India company; on the abolition of whose charter, in 1674, it became vested in the crown. The English took it in February, 1762. The French, under Count D'Estaing, retook it in 1779, and restored it in 1783.

The colonial act of 1784, provides stipends of 390*l.* currency for 5 clergymen, 1 for St. George, 3 for the remaining parishes, and 1 for Carriacou. There are also valuable glebes in each parish. There are still a few Catholic clergy in the island. In 1816, there were 2 Wesleyan Methodist missionaries, and 173 members of their society. The governor is chancellor, ordinary, and vice admiral. His salary is 3200*l.* currency. The council consists of 12 members, and the house of assembly of 26. A freehold of 50 acres, qualifies a representative, and one of 10 acres a voter. The governor and council compose a high court of errors and appeals. There is also a court of grand sessions, of common pleas, and of admiralty. The *slave laws* of Grenada are honorable to its legislature.

The population, in 1700, was 251 whites, and 525 blacks; total 776. The number of whites, in 1771, exceeded 1600; in 1777 it

fell short of 1300, and the number of blacks at that time was stated at 35,000. The population, in 1785, was 1000 whites, and 23,926 negroes. The number of free blacks, in 1787, was 1115. In 1805, there were 1100 whites, 800 people of color, and 20,000 slaves.

About 500 regular troops are maintained here, together with 3 companies of king's negroes, who served in the American war. In 1777, there were 5 regiments of militia, with a company of free blacks attached to each.

St. George, the capital, formerly fort Royal, lies on a spacious bay, in the southwest part of the island. Its harbor is one of the best in the West-Indies. The town is divided by a ridge running into the sea. The church is on the ridge, and nearer the promontory is an old fort large enough for a regiment.

The produce of the island and its dependencies, in 1787, was exported in 188 vessels, manned by 1824 men, and measuring 25,764 tons; and consisted of 175,548 cwt. 0 qr. and 9 lbs. of sugar, 670,390 galls. rum, 4300 molasses, 8812 cwt. 2 qrs. 4 lbs. of coffee, 2716 cwt. 3 qrs. 18 lbs. of cacao, 2,062,427 lbs. of cotton. 2810 of indigo, and other articles in value 64,545*l.* 0*s.* 3*d.*; making a total of 614,908*l.* 9*s.* 3*d.*

The country is mountainous, but no where inaccessible. It abounds with springs and rivulets. Of the 80,000 acres, 72,141 paid taxes in 1776, and are therefore probably susceptible of cultivation, yet the quantity actually cultivated has never exceeded 50,000. To the north and east the soil is a brick mould, like that in Jamaica. In the west it is a rich black mould, on a stratum of yellow clay. In the south it is poor, and of a reddish hue, and the same extends over a considerable part of the interior. On the whole, the island is in a high degree fertile. In 1776, more than 1 hogshead of sugar, of 16 cwt. was procured from the labor of each negro, old and young, engaged in the culture. The country abounds with rivulets. Point Laurent is the northwest cape, Levera point the northeast, and Salines point the south.

Cariacou island lies 5 leagues N. N. E. of Grenada, contains 6913 acres, has Hillsborough for its capital, is very fertile, and produces 1,000,000 lbs. of cotton, besides maize, yams, potatoes, and plantains. *Isle Rhonde* contains 500 acres, devoted to pasturage, and cotton. These and a number of islets in the neighborhood are called *The Grenadines*.

The Grenada bank is a shoal 5 leagues west by south from point Salines, is nearly as large as Grenada, and has from 10 to 20 fathoms.

TOBAGO.

Tobago lies 30 leagues S. E. by E. of Grenada, and 42 S. S. W. of Barbadoes. It is 30 miles long from E. N. E. to W. S. W. and 9 broad. Columbus discovered it in 1498, and called it *Tobago*. A small colony of Dutch first settled it, in 1632, and called it *New Walcheren*. The Spaniards and natives soon exterminated them.

James, duke of Courland, about the year 1634, sent a colony thither, which planted itself on the west side, at *Great Courland bay*. On the death of the duke, in 1737, the island reverted to the king of England. In 1748, it was declared neutral by England and France; and, in 1763, yielded to the former. It was taken by France, in 1781, and ceded to her in 1783; retaken in 1793, receded in 1802, and again taken in 1809. It was confirmed to the English by the treaty of Paris in 1814.

Its population, in 1805, consisted of 900 whites, 700 people of color, and 14,883 slaves; in all nearly 16,500 souls.

Scarborough is the name of a town on the southeast coast.

In the northwest the country is mountainous; generally, it is pleasantly uneven. The island has one incalculable advantage over those farther north, that it lies out of the usual track of the hurricanes. Its soil is chiefly a rich black mould, calculated for all the productions of the climate. Its fruits are uncommonly excellent.

TRINIDAD.

Trinidad lies 15 leagues S. S. W. of Tobago, 35 S. S. E. of Grenada, and 4 from point Paria, on the continent. In size it is the fifth of the West-Indies, and the largest of the Caribbean islands; being 60 miles in length from north to south, and having an average breadth of 40. The gulf of Paria lies on the west; and an arm of the sea on the south, called the *Serpent's Mouth*, and connecting that gulf with the ocean. The natives called the island *Cairi*. Columbus called it *Santissima Trinidada*, or the *Most Holy Trinity*. The French call it *La Trinite*; the English merely abridge the appellation of Columbus. He discovered it in 1498. The Spaniards first settled the island, but in what year we have not been able to ascertain. They treated the natives with the utmost cruelty. Sir Walter Raleigh, in 1595, invaded it, and broke up the Spanish settlement. The Spaniards afterwards reoccupied it; but we know little of its subsequent history. It was taken by the English in February, 1797, and ceded to them by Spain at the treaty of Amiens, in 1802.

An English governor resides here. In 1805, the population consisted of 2,261 whites, 3,275 people of color, and 19,709 slaves; in all 25,245 souls. Some of the whites are Spaniards and some English. It is said that a considerable number of the natives are still found in the eastern part of the island, but we do not know whether they are Arrowauks or Carabes.

The inhabitants of Trinidad, previous to the late capture, were probably the most dissolute of the Spanish colonists. There were but very few white females in proportion to the number of males, and almost every planter had his African harem. The wretched occupants, however, unlike those of a Turkish seraglio, were compelled to work daily in the field, under the lash of the overseer. The female negroes prodigiously outnumbered the males; a difference attributable, not to the climate, but to the sensuality of the purchasers. Many of the Spaniards removed after the late capture, and the English emigrants have chiefly conformed to the existing

manners. In 1816, there were 330 persons on the island, of the Wesleyan Methodist denomination, and one Methodist missionary. The London Missionary Society also have a missionary here.

Port Espana, on the west side of the island, is the principal seaport. In 1806, it contained about 3000 inhabitants.

Three distinct ridges of mountains cross the island from west to east; the northern, middle, and southern. Marshes of considerable extent are found in various places. The following statement is given by M'Callam of the land susceptible of cultivation. He does not pretend that it is perfectly accurate :

	acres.
1313 lots suitable for sugar	420,160
945	coffee 302,400
158	cotton 50,560
304	cacao 98,280

2720	870,400 or 1360 square miles
------	------------------------------

Deduct 400 lots already granted by the Spanish government	} 128,000
2320	

So that the crown now holds 742,400 acres.*

Three navigable rivers fall into the gulf of Paria, the Caroni, Gurracara, and Coura. The Caroni is navigable 20 miles, but has a bar at its mouth. The two chief rivers of the eastern coast, are the Ortoire, and the Oropuche. The Ortoire has, for 20 miles, from 2 to 5 fathoms, but is barred at the mouth. The Oropuche is navigable about 10 miles. A canal is proposed between the Aripo, a branch of the Caroni, and the Guaro, a branch of the Oropuche. It will furnish a navigation across the island.

There is a remarkable lake, or plain, in Trinidad, known by the name of the Tar lake. It is on the W. coast, a little S. of the middle of the island; on a headland which reaches about 2 miles into the sea; is 2 miles broad; and is exactly opposite the high mountain of Paria, on the other side of the gulf. The cape, or headland, is about 50 feet high, and the greatest elevation on the W. coast. From the sea it appears a mass of black, vitrified rocks; but on a closer examination it is found to be a composition of bituminous scorix, vitrified sand, and earth, cemented together; in some parts beds of cinders only are found. In approaching the cape, there is a strong sulphureous smell, which is prevalent in many parts of the ground to the distance of 8 or 10 miles from it. The Tar lake is on the highest part of the promontory, and in the rainy season is covered with water. This evaporates in a few days after the rains have ceased and the surface is every where soon cracked by the heat of the sun into numberless divisions. It has the consistence of pit coal, the color rather gray. It breaks into small fragments of a glossy, cellular appearance, with a number of minute, shining particles interspersed through its substance. It is very friable, and when liquid is of a jet black color. It is of a very considerable depth, and the

* This was in 1802.

surface is broken with great difficulty. A gentle heat renders it ductile; hence, mixed with a little grease or common pitch, it is much used for graving the bottoms of ships. This substance is also found in various other places within 20 miles; and there is a number of hot springs in the neighborhood.

LESSER ANTILLES.

THESE islands lie between lat. 10 30 and 12 25 N. and between lon. 63 20 and 69 50 W.; and stretch from S. by E. to N. by W. along the northern coast of South-America, in a direction nearly parallel with the Greater Antilles. Margarita,* the most eastern, is 2° 10' farther east than Porto Rico; while Cuba is 15 10 farther west than Orubilla, the most western. The following is a list of the principal islands with the smaller ones in the neighborhood of each:

Margarita	{ Cubagua, Coche, Feayles, Sola, the Testigos, Blanca, and the Seven Brothers.	
Tortuga or Sal Tortuga.		
	Orchilla	The Roca islands
	Bonair	Aves
	Curaçoa	Little Curaçoa
	Aruba or Oruba	Orubilla.

MARGARITA.

As this island, with its dependencies now constitutes an integral part of Venezuela, a description of it will be given in our account of that country.

TORTUGA.

Tortuga, Sal Tortuga, or Tortuga Salada, is 16 leagues W. from Margarita, and 15 from the Main. It is about 40 miles in circumference. On the S. E. there is an indifferent road for shipping, much frequented by merchantmen, which come hither from May to August, to lade salt. In the neighborhood, within 200 paces of the coast, there is a large salt pond, from which immense quantities of salt are taken annually. Near the W. end there is a small harbor, and some fresh water. The E. end is full of rugged and broken rocks, and destitute of vegetation; but the W. end is more level, and is full of shrubby trees. A few goats are still found here. Great numbers of tortoises or turtles come into the sandy bays to lay their eggs. Hence the island was called *Tortuga* or *Turk island*.

* Margarita is the most eastern, except the Testigos, and various other rocks in its neighborhood.

ORCHILLA.

Orchilla or *Horchilla* lies 20 leagues N. W. by W. of Tortuga, and is 24 miles long, from E. S. E. to W. N. W. and 12 broad. Its shape is that of a crescent. Several small islands are separated from it by very narrow channels. On the S. W. the coast is bold, so that a ship may lay her broad side close to the shore ; but the N. side is foul and rocky. The land is generally low. A considerable number of goats are found here. The Roca islands are a cluster of islets about 7 leagues W. of Orchilla.

BONAIR.

Bonair or *Buenaire* lies 33 leagues W. N. W. of Orchilla, and 21 from the Main. It is about 40 miles long from N. W. to S. E. and 15 broad. It belongs to the Dutch. There is a good harbor on the S. W. coast. Here the Dutch had erected a fort, and there were a few houses. Lately there were in the island, a small number of Indian families, who planted yams, maize, and potatoes. The island abounds with cattle and goats. There is a good salt pond on the S. coast, where the Dutch used to collect large quantities of salt. The *Aves* or *Bird islands*, are a cluster of islets, about 6 leagues S. S. E. of Bonair.

CURACOA.

Curaçoa is 8 leagues W. of Bonair, and 16 from cape Roman, on the Main. It is about 60 miles in length from S. E. to N. W. and from 10 to 16 broad. The Spaniards first settled it; the Dutch took it from them in 1632. It was taken by the English in 1806, but was restored to the Dutch at the general peace of 1814. The inhabitants are almost wholly Dutch. They have long been distinguished for their industry and enterprize. The principal town is Amsterdam, in the S. W. part of the island. The harbor has been made an excellent one by the industry of the inhabitants. It is defended by a strong fort. The town is one of the largest and finest in the West-Indies, and is said to contain about 30,000 inhabitants. The public buildings are numerous and handsome; the private houses are large and convenient and the magazines are capacious and well stored. The trade of this island was in time of peace chiefly contraband with Caraccas, and Western Terra Firma; and was worth to the Dutch half a million sterling. The Dutch furnished the Spanish colonies with negroes from Africa, and with woollens, linens, laces, silks, ribands, hard ware, naval and military stores, brandy, spices, and India calicoes, and received in return, gold and silver coined or in bars, cacas, vanilla, Jesuit's bark, and cochineal. In time of war this island became also the common emporium of the West-Indies. In 1810, the exports from the island amounted in value to £263,996, and its imports to 236,181.

The soil of the island is naturally barren, but has been rendered very productive. The Dutch converted the pastures, on which

vast numbers of cattle were formerly raised, into sugar and tobacco plantations. Here are extensive salt works, which afford a considerable supply to the English islands, and the Spanish Maine. Little Curaçoa is an islet near the S. E. cape.

ARUBA.

Aruba, or Oruba, lies 13 leagues W. of Curaçoa, is 15 miles long, and 8 broad. It is uninhabited. It abounds in timber. Orubilla is an islet a little N. W. of Aruba.

SOUTH-AMERICA.

EXTENT, BOUNDARIES, DIVISIONS, ARRANGEMENT.

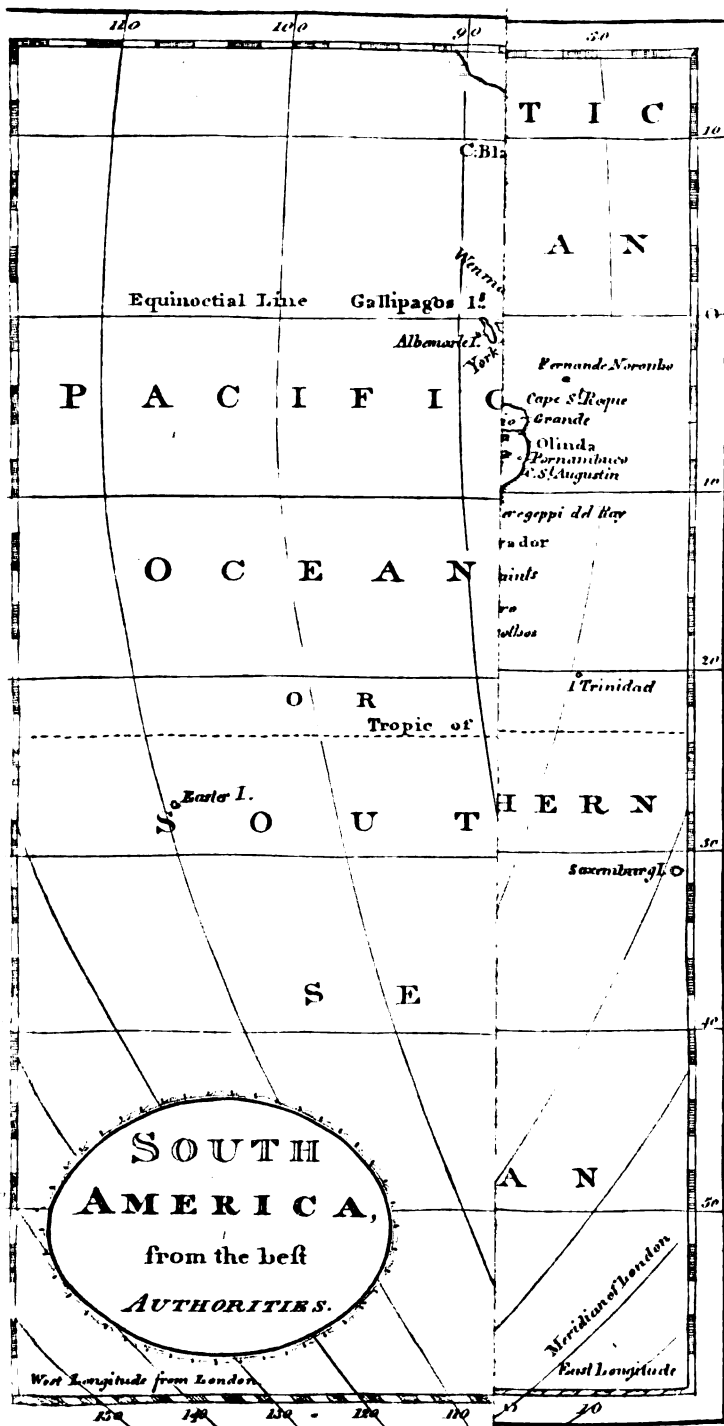
Extent.] THE southern half of the western continent reaches from cape Isidro, in lat. 54° S. to cape de la Vela, in lat. 12° N; and from cape St. Roque, in lon. $34^{\circ} 30'$, to cape Blanco, in lon. 81° W. Its length from N. to S. is 4570 miles; its greatest breadth is 3230.

Boundaries.] On the north is the Caribbean sea and the Atlantic; on the east the Atlantic; on the south the straits of Magellan; on the west the Pacific; and on the northwest the isthmus of Darien, which connects it with North-America.

Divisions.] The whole of this extensive country, except that occupied by the aborigines, was lately divided into colonial governments belonging to Spain, Portugal, Holland, and France. The present grand divisions may be arranged in geographical order as follows:

1. New-Grenada
2. Venezuela
3. Guiana
4. Peru
5. Amazonia
6. Brazil
7. The United Provinces of South-America (*formerly the vice-royalty of Buenos Ayres*)
8. Chili
9. Patagonia.

Of the above divisions, Brazil is a kingdom, having become the residence of the royal family of Portugal. Chili and the United Provinces were formerly Spanish colonies, but have declared themselves independent, and seem to be in a situation to support this rank. Venezuela has also declared itself independent, and now maintains the conflict with various success. New-Grenada and Peru are still in the possession of Spain. Guiana, except the parts connected with Venezuela and Brazil, is subject to Great-Britain and France. Amazonia and Patagonia are still in the possession of the Aborigines.



The line of demarkation between the Spanish and Portuguese territories, as well as the boundary between Portuguese Guiana and Cayenne, ought here to be stated; that the reader may understand, at a glance, the mediterranean limits of the respective divisions. For the substance of the former we are indebted to the last edition of Pinkerton. The boundary line between Cayenne and Portuguese Guiana, was settled in September, 1801. It commences at the mouth of the river *Arowary*, 120 miles north of the Amazon, and follows that river to its source. Thence westward, it is a parallel of latitude, (and according to the map of Depons, the parallel of 1° 30' N.) till it strikes the river *Blanco* or *Parima*. Cayenne does not extend any farther west. The Portuguese line, however, continues westward till it meets the Negro, a little south of *Fort San Carlos*, or *St. Charles*, the last Spanish settlement on the Negro.

The line of demarkation between the Spanish and Portuguese territories was settled by the treaty of St. Ildefonso, in 1777. In that treaty, reference is made to the former line of demarkation, the terms of which we have never seen; and, for this reason, our account of the present limit will be in some measure imperfect. Beginning in the south, two lines are drawn between Brazil and Buenos Ayres, as far as the junction of the *Pepiri* and *Uruguay*; and the territory between the two lines is neutral. The Spanish line commences on the coast at the mouth of the small river Chuy, in lat. 33° 40' S. and strikes the S. W. side of lake Merin. The Portuguese line begins on the coast, in lat. 33° 3' S. and strikes the N. E. side of that lake. The lake and the isthmus, between it and the sea, from lat. 33° 40' to 33° 3' S. belong to neither nation. The Portuguese line proceeds from the northeast corner of the lake, along the former boundary of the province *Del Rey*, in Brazil, till it strikes the *Uruguay*, at the mouth of the *Pepiri*. The Spanish line, leaving the southwest corner of the lake, passes northwards along a chain of mountains, which gives birth to many tributaries of the *Uruguay*, as far as the influx of the *Pepiri*, which flows from the north into the *Uruguay*. Beyond this there is but one boundary, and it runs northwards up the *Pepiri* to its source, and thence pursues a straight course to the influx of the *St. Antonio*, into the *Iguazu*. It goes down the *Iguazu* to its entrance into the *Parana*, then up the *Parana*, till it receives the *Iguri* from the west; then goes up the *Iguri* to its source in the mountains; then along these mountains, (which lie south of the river *Wendecrets*, or *Mibotete*.) westwards, to the river *Paraguay*. It ascends the *Paraguay*, through lake *Xarayes*, to the influx of the *Jauru* on the east side. It goes thence, westward, to the confluence of the *Sarare* with the *Itenas* or *Guapori*; then down the *Itenas* to its union with the *Mamori*; and then, down the *Mamori*; (which from thence is called the *Madeira*) to the former boundaries of Peru and Amazonia. It thence passes northwards, but obliquely, from the *Madeira* to the *Amazon*, striking the latter river considerably west of the *Yupura*; then, down the *Amazon* to the western mouth of the *Yupura*; then, up the *Yupura*, to the point where the frontiers of Peru, Amazonia, and New-Granada, united, in 1777. How far this reaches up the *Yupura* we are not informed. From

this point, wherever it is, to make the boundary complete, a line must pass in an easterly direction to the Negro, striking it just below San Charlos, in lat. 1 30 N.

Although the above is the boundary between the Portuguese and Spanish territories, as settled by treaty in 1777, the Portuguese troops from Brazil, have recently passed over these limits in the south, and taken possession of all the country east of the Parana, and the Rio de la Plata. Their right, however, is contested by the United Provinces of S. America, who claim dominion over all the territory belonging to the Spanish viceroyalty of Buenos Ayres, in 1810 ; of which this was a part.

Arrangement.] A geographical arrangement will here also be pursued, commencing from the northwest. New-Granada will occupy the first place, Venezeula the second, Guiana the third. Peru, Amazonia, and Portuguese America, will follow in their order. Chili and the United Provinces of S. America, will next succeed, and Patagonia will conclude the account of the continent. After this a small place will be allotted to a description of the American islands.

NEW-GRANADA.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT, BOUNDARIES, DIVISIONS, NAMES, HISTORY, RELIGION, POPULATION, MANNERS AND CUSTOMS, CITIES, COMMERCE.

Extent.] NEW-GRANADA reaches on the Pacific from Punta Gorda, in about lat. 9° N. to the mouth of Rio Tumbez, in lat. 3 25 S. On the Caribbean it extends from the mouth of Rio Dorados, in about 10° N. and 82 30 W. to the mountains of Santa Martha, a little W. of lake Maracaibo, in lon. 72 30 W. The territory is about 1080 miles long, from N. to S. and has an average breadth of about 280.

Boundaries.] On the N. lies the gulf of Darien and the Caribbean sea ; on the N. E. and E. Venezuela, including Spanish Guiana, and Portuguese Guiana ; on the S. Peru ; on the W. the Pacific ; and on the N. W. Guatemala. As far south as the sources of the Apure it has for its eastern boundary the mountains of Santa Martha. To the south of that river it stretches farther E. to the Oronoko, and still farther south, reaches to the Casiquiara and the Yupura, which divide it from Portuguese Guiana. The Amazon is its southern boundary in the interior.

Divisions.] New-Granada is subdivided into 24 provinces. One of these, Veragua, is in North-America; and two others, Panama Darien, are on the isthmus. These three compose Terra Firma proper. The following is a list of the provinces, beginning at the N. W.

- | | |
|---|---|
| I. Under the jurisdiction of the
audience of Panama | 12. Novita |
| 1. Veragua | 13. Rapasa |
| 2. Panama | 14. Popayan |
| 3. Darien | III. Under the jurisdiction of the
audience of Quito |
| II. Under the jurisdiction of the
audience of Santa Fe | 15. Barbacoa |
| 4. Choco | 16. Pastos |
| 5. Zinu | 17. Atacamcs |
| 6. Carthagena | 18. Quito |
| 7. Santa Martha | 19. Riobamba |
| 8. Merida | 20. Guayaquil |
| 9. San Juan de los Llanos | 21. Macas |
| 10. Santa Fe | 22. Cuença |
| 11. Antioquia | 23. Loja |
| | 24. Jaen de Bracamoros |

Names.] This country, together with Venezuela, were for a long period known under the general name of *Terra Firma*, or *Tierre Firme*; a name, originally applied to the three provinces of the isthmus, which are now called *Terra Firma Proper*; but early extended in its application, so as to include both New-Granada and Venezuela. The name of *Eastern Terra Firma* was also attached to Venezuela; and that of *Western Terra Firma* to the country now under consideration. It received the name of *New-Granada* from Spain, when erected into a captaingeneralship, in 1547.

History.] New-Granada originally constituted a part of Peru. Two audiences were erected in 1547, one at Panama, the other at Santa Fe de Bogota; and the territories under the jurisdiction of both were constituted a captaingeneralship. Quito was made the seat of an audience in 1563, but the territories subject to it still belonged to Peru. In 1718, New-Granada was erected into a viceroyalty; Quito and Venezuela were annexed to it, and the audiences of Panama and Quito were abolished. Four years after, these two audiences were restored, the viceroyalty was abolished, and every thing placed on its former footing. In 1739, the territories dependent on the three audiences of Panama, Santa Fe, and Quito were again erected into a viceroyalty.

A congress, assembled at Carthagena, in November, 1811, declared the country independent. The royal troops however, have, succeeded in re-establishing the authority of the mother country, and New-Granada is still a colony of Spain.

Religion.] There is an archbishop at Santa Fe, and bishops at Carthagena, Panama, Santa Martha, Popayan, and Quito. Missions are established at various places in the interior; but we have no particular account of these.

Government.] All the provinces were under the government of the viceroy, who resided at Santa Fe, and had similar powers with the viceroy of Mexico. The jurisdictions of the three audiences have been mentioned.

Population.] The population of New-Granada has been estimated by some at 600,000, by others at 1,000,000. The travels of Humboldt in Mexico, have thrown new light on the population of Spanish America, and have shown that it greatly exceeds its commonly estimated amount. Probably that of this country may not fall short of 2,000,000.

Manners and Customs.] Of the whites the *Chapetones*, or Europeans, are not numerous. Most of them formerly returned to Spain after acquiring a competent fortune. The families of the Creoles compose the landed interest. All the white men wear the Spanish dress, but of very light materials. Both sexes arrive early at maturity, and discover a great share of penetration; but make no advances after five and twenty. This is owing partly to the want of motives, and in the men, partly to a premature decay, occasioned by excessive debauchery. The morals of both sexes are deplorably licentious. Indolence is also a general characteristic.

The Indians in the towns are generally mechanics. Many of them also are compelled to work on the plantations. The Indian barbers and phlebotomists are not inferior to those in Europe. They are almost universally lazy and dishonest. The Indians and mestizoes are most numerous in the interior and in the south.

The negroes are found principally in the northern part of the country. The different grades of a mixed breed are much more numerous than the genuine negroes. The *tercerones*, and all of a white cast, affect the Spanish dress. They and the mulattoes are chiefly the mechanics in all the northern towns.

Cities.] SANTA FE DE BOGOTA, or La Sabana, was founded by Quesada, in 1538, and was made the seat of an archbishopric in 1554, and of an university, in 1610. It stands in lat. 4° 35' N. lon. 74° 8' W. in a beautiful and spacious plain, on the shores of a river of the same name, a tributary of the Magdalena, and 35 miles from its mouth. It lies a considerable distance east of the western Andes. The streets are broad, straight, and regular, and the houses were formerly handsome. The cathedral is magnificent and richly endowed; There are 3 parish churches, 8 monasteries, 4 nunneries, and 1 hospital. The number of inhabitants was about 30,000. This place is now reduced to a miserable settlement.* There are numerous hamlets and Indians in the neighborhood.

QUITO was rebuilt by Belalcazar, in 1534, having previously been a considerable city of the natives, by whom it had just before been destroyed. It stands on the eastern acclivity of Pichinca, a lofty eminence of the western Cordillera of the Andes, about 130 miles from the Pacific, in lat. 0 13 33' N. and in lon. 77 55' W.

* Alcedo.

The site of the town is very uneven and irregular. The principal square is very spacious, and has an elegant fountain in the centre. On one side stands the cathedral, on the opposite the Episcopal palace, on the third the town house, and on the fourth the palace of the audience. The four streets on each side of the square are straight, broad, and handsome; the others are crooked, and so rough and broken, as to be impassable with wheel carriages. At the sides of two other large squares most of the convents are built. Many of them are elegant. The houses are all of one story, and generally have balconies towards the street; but the doors and windows low and narrow. They are built of *adobes*, or unburnt bricks, cemented by *sangagua*, a species of mortar of uncommon hardness, invented by the Indians. The inhabitants are about 65,000 in number, of whom a sixth are whites, a third mestizos, a third Indians, and the rest blacks of the various grades.

CARTHAGENA was founded by Pedro de Heredia, in 1533. It stands in lat. 10 25 48 N. and in lon. 75 21 14 W. on a large bay 2 and a half leagues from north to south, defended from every wind, with a sufficient depth of water, and good anchorage. The entrance of the bay is very narrow. The site of the town is a sandy island, artificially connected at the west end, with the main. The streets are straight, broad, uniform, and well paved. The houses are chiefly of stone, of one story, and have balconies and lattices of wood. The churches and convents are well built and numerous. It contains about 15,000 inhabitants. They depend wholly on the clouds for fresh water. Many of them are afflicted with the leprosy.

In the course of the contest which is now carrying on between Spain and her colonies, Carthagena has suffered considerably, having been besieged first by the independents under Bolivar, and afterwards by the royal troops under Morillo. It surrendered to the latter, on the 6th Dec. 1815.

PANAMA was built by Pedro Davila, in 1518. It stands on the south side of the isthmus, in lat. 8 57 48 N. and lon. 80 21 W. The population is about 10,000. The harbor is formed by several islands, and is safe. Ships only come within 3 leagues of the city. Formerly it was a place of great trade.

GUAYAQUIL was founded about the year 1530, and stands on the west bank of the river Guayaquil, in lat. 2 11 21 S. about 6 leagues from its mouth. It is very narrow, but extends a considerable distance along the river. The streets are broad and straight. The houses are of wood, and are large and beautiful. The population is about 10,000 souls. The inhabitants are the fairest in the country, and the women are uncommonly handsome. The town is defended by three forts. The river is navigable to the town for vessels of any size, and affords the best harbor on the coast.

POPAYAN was founded in 1536, and stands in lat. 2 50 N. and lon. 75 50 W. on the east side of a mountain of considerable height, called *M*, from the resemblance it bears to that letter.

The streets are broad, straight, and level. The houses are built of unburnt bricks, and the largest are of two stories. It contains a cathedral, 3 monasteries, and 2 nunneries. The population is stated by Ulloa at between 20,000 and 25,000. Great numbers of them are negroes, and but few Indians. The Molino, issuing from the mountain of M, runs through the city. The Cauca runs about a league to the north.

PORTO BELLO stands on a fine harbor, on the Caribbean sea, in lat. 9 33 5 N. lon. 79 50 20 W. It was formerly a place of considerable note, but has greatly declined.

NEIVA stands on the Magdalena and contains about 2000 souls.

SANTA MARTHA lies on the east coast of a large bay of the Caribbean, called *Boca Grande*, about 130 miles northeast of Cartagena. It has a fine, well protected harbor, and is a town of considerable size. It served as a place of rendezvous to the early invaders.

Commerce.] Formerly the galleons from Cadiz brought once a year immense quantities of European merchandize to Porto Bello for the supply of South-America, and received in return the precious metals and the other commodities of those countries. During the long period in which this system lasted, the English carried on an immense contraband trade along the whole coast.

The recent political revolutions in this country, have of course produced similar revolutions in its commerce. The result of the grand contest which is now pending between Spain and her colonies must determine whether the commerce of these regions shall flow in its old, narrow, colonial channel, or under independent governments, be open for the benefit of all mankind.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE AND SEASONS, RIVERS, MOUNTAINS, BOTANY, ZOOLOGY, MINERALOGY.

Climate and Seasons.] THESE vary, in this extensive country, with the varieties of elevation and of latitude. In the N. the season called winter is from the end of May to December. During this period there is an almost constant succession of thunder, rain, and tempests. From December to the end of April is the dry season. The weather now becomes agreeable, the heat being somewhat abated by winds from the N. Beside this there is an interval of about a month, from the festival of St. John, in which the rains intermit. Both seasons are very unhealthy to Europeans, and to the inhabitants of the mountains, who come down into the plains. The

Spaniards, in 3 or 4 months, lose the ruddy color of health, and acquire the pale wan complexion of the climate. Europeans are all liable here to diseases, resembling the yellow fever, and great numbers are annually carried off. The leprosy is a common disease in the north. Its miserable subjects are separated from the rest of the community. They intermarry and the disease is thus perpetuated. Another disease is the *cobrilla* or *little snake*. Another is the *spasm* or convulsion, which is always mortal.

Among the mountains every variety of climate may be experienced. Their tops are covered with snow. In descending, one meets successively with spring, summer, and autumn. The plains near them are temperate and delightful; the vallies are hot. At Quito, almost under the equator, the inhabitants are never obliged to make any difference in the warmth of their dress in the different seasons. The climate has always a pleasant temperature, and is healthy there and in all the upland country. Throughout the year the days are usually clear and fine, till 2 o'clock; then the vapors begin to rise, and the atmosphere is covered with black clouds, which bring on dreadful tempests of thunder and lightning. Near sunset it clears up, and nature puts on the beautiful appearance of the morning. In these regions they call it winter from October to April, because the rains are more constant; whereas in the rest of the year, 8 or 10 days of fine weather frequently follow each other.

In the S. near the coast, as at Guayaquil, the rainy season or winter sets in in December and lasts till April or May; so that they have directly opposite seasons here and at Carthagená. The rains continue day and night without intermission, accompanied with frequent and terrible thunder storms. At the commencement of summer, the S. W. and W. S. W. breezes set in, and prevail every day from noon, till 5 or 6 in the morning. They cool the air, and keep the sky serene and bright. The fever and ague is a common disease in this part of the country throughout the winter. The black vomit has prevailed since 1740. The natives are subject to cataracts, and many are afflicted with total blindness.

Rivers.] The great river Magdalena rises on the eastern side of Coconucu, a volcano of the Andes, some distance S. of the latitude of Popayan. It thence pursues a northerly course, between the chain of Santa Martha and that of Venezuela, to the bay of Boca Grande, emptying near the head of that bay, about 40 miles S. W. of St. Martha, in lat. 11 8 N. Honda, the most southern port on the river, is in lat. 5 16. Thus far it is navigable for ships of a considerable size. Its whole length must be nearly 1000 miles.

The Cauca rises in the mountains of Maraquita, near the source of the Magdalena, and 160 leagues from S. to N. in which course it collects the waters of many other rivers, and passes near the cities of Popayan, Buga, Cali, and Anserma, whence it is navigable till it enters the large river of the Magdalena. Opposite Popayan, and Antioquia, it is narrow and crooked through rocks, and dangerous to pass. The Indians navigate it with great dexterity.*

* Alcedo.

Several branches of the Oronoko are found in this viceroyalty. The *Meta* issues from the mountains of *Venezuela*, and runs E. N. E. 500 miles. It empties 140 miles above the *Apura*, and is navigable to Macuco about 370, and less than 40 leagues from Santa Fe. Its largest tributary the *Casahare*, falls in 180 miles below, from the N. W. The *Guaviari* rises in the same mountains, and runs nearly parallel with the *Meta* for about the same distance, and falls into the Oronoko at San Fernando. It receives the *Inirrite* from the S. a tributary nearly equal to itself, about 25 miles from its mouth. The *Atacari*, a considerable stream, unites with it from the S. E. just at its confluence with the Oronoko.

Two great branches of the Amazon, the Putumayo and Coqueta, both before and after it divides into the Negro and the Yupura, run a long distance in this territory.

The river Guayaquil is the largest primitive stream in the south. It rises in the Andes, and flows westward, to the gulf of Guayaquil. In winter it is navigable for large vessels to Caracol, 120 miles, in summer to Babahoya, 105 miles. Thus far the tide rises. It is a league broad at the mouth, and still broader at Guayaquil. In winter it is only a torrent. The Tumbez is the southern boundary of the viceroyalty.

Mountains.] The Andes have already been mentioned as traversing this country from north to south. Not far from Popayan, near the sources of the Magdalena, they are said to be divided into three chains; the eastern is the chain of Venezuela, the western the proper Andes, and the middle the chain of Santa Martha. This last passes between the Magdalena and Cauca till they unite. These being broken by the former, it proceeds on the east side of the united stream, to the northern coast of the province.

The loftiest summits of the Andes are in the jurisdiction of the audience of Quito. The peak of the crater Pachinca, near Quito, as measured by Humboldt, is 15,940 feet above the level of the sea; that of the porphyritick mountain of Antisana 19,150; and that of Cotapaxi 18,890. Tunguragua he found to be 16,500 feet high, and Chimborazo 21,440. These admeasurements were partly trigonometrical, and partly barometrical, and are believed to have been accurate. The results differ somewhat from those of Ulloa and the French mathematicians.

Botany.] The botany of no country on the globe is probably richer than that of New-Granada, whether we regard the size, beauty, and durability, of its timber, the variety and excellence of its fruits and vegetables, the beauty and fragrance of its flowers, or the medicinal virtues of its various trees and plants.

Zoology.] The *llama* or Peruvian camel is common in the southern provinces. It resembles the camel in its pace, and in the shape of its neck, head, and some other parts; but has no bunch, is smaller, and cloven footed.

The woods abound with birds interesting for the sweetness of their notes, or the beauty of their plumage, but these two characteristics are rarely or never united.

The bats of this country are the most impudent of animals. The inhabitants being compelled to leave their windows open in the night, and to sleep with little or no covering ; they fly in, insinuate their teeth into a vein with all the art of an expert surgeon, and suck the blood till they are satisfied. Their numbers in the evening are inconceivable. The *condor* is the largest bird in this country, and is known frequently to seize and fly away with lambs.

The coral snake is four or five feet long, has a skin variegated with a vivid crimson, yellow, and green, and a flat and long head like a viper. Its bite is almost instant death. There are here two species of rattle snake, both of a brown color ; the common one 2½ feet, the other 3½ long. The *culebra de bejugo* resembles a branch of that plant in shape and color, and usually hangs from it to conceal itself. Its poison is a slow, but certain death, unless relieved. The *jacumama* is an immense serpent found east of the Andes. It is 11 or 12 feet in length, and near a foot in diameter. The *nigua* is a most troublesome insect, usually living in the dust. It is extremely small, and inserts itself through the skin into the flesh of the foot with great facility. Unless speedily removed it forms a nest and lays numerous eggs ; which, in a few days, become young *niguas*, and scatter in the flesh. Sometimes they penetrate even to the bone and can be extracted only with instruments.

Mineralogy.] There are many gold mines in various parts of the country, particularly in the provinces of Quito, Popayan, Antioquia, and Choco. The silver mines of Marquetones in the district of Pampelona are inferior in richness only to those of Potosi. Platina is said to be found only in Choco. Copper and lead mines are abundant. The emerald mines of Muzo, in the mountains of Itoco, 50 miles N. of Santa Fe, are the most celebrated in the world.

VENEZUELA.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT, BOUNDARIES, DIVISIONS, NAMES, HISTORY, ABORIGINES, RELIGION, MISSIONS, GOVERNMENT, POPULATION, REVENUE, ARMY, MANNERS AND CUSTOMS, LANGUAGE, LITERATURE, CITIES AND TOWNS, ROADS, MANUFACTURES AND COMMERCE.

Extent.] THIS country, lately a province of Spain, but now struggling for independence, reaches, on the northern coast of South-

America, from the mouth of the Essequibo to cape de la Vela, in lon. 72 30 W. This includes upwards of 1000 miles of seacoast. At the eastern end, according to these limits which are assigned to it by Depons, it has a width of 350 miles, and farther W. of 650. W. of the Oronoko it may be considered as extending S. to the Apure, a branch of the Oronoko.

Boundaries.] On the N. lies the Caribbean sea; on the N. E. the Atlantic; on the E. the river Essequibo, which divides it from English (late Dutch) Guiana; on the S. the Oronoko; and on the S. W. and W. New-Granada. The immense circular peninsula between the Essequibo and Oronoko is the country called *Spanish Guiana*. It is chiefly a wilderness, inhabited by savages, and has few European settlements, except on the Oronoko. Its name is not mentioned among the provinces that sent deputies to the general congress at Caraccas; but, as it was one of the provinces of the captain-generalship, and will probably follow the fate of the rest, we have included it in our account of Venezuela.

Divisions.] In the declaration of independence in 1811, 7 federative provinces are mentioned, all of which, except the isle of Margarita, have the names of their respective capitals. The following are the names of these provinces, geographically arranged:

Margarita	Truxillo
Cumana	Merida
Barcelona	Varinas
Caraccas	

According to Depons it was previously divided into

Margarita	Venezuela, in the middle, and
Cumana, in the east	Maracaibo, in the west.
Guiana, in the south	

Names. For a long period this country has been known in the writings of geographers and travellers under the name of *Eastern Terra Firma*. Since 1786 the Spaniards have called it *the captain-generalship of Carracas*. At the late declaration of independence, it assumed the title of *the republic of Venezuela*.

History.] Columbus discovered the country and sailed along the coast from the Oronoko to Margarita in 1498. After several unsuccessful attempts to settle it by means of missionaries, it was at last reduced by force of arms, and assigned in property to the Welers, a German mercantile house, by Charles V. Under their management the natives suffered the most grievous tyranny; and such were the various abuses of their administration, that they were dispossessed in the year 1550, and a supreme governor was appointed by the king of Spain. From this period till the year 1806, it remained in quiet subjection to the mother country.

In 1806, Gen. Miranda a native of Caraccas placed himself at the head of an expedition, fitted out partly at St. Domingo and partly at New-York, and sailed for this country. His object was to liberate it from the Spanish yoke. Finding his force wholly inadequate, he abandoned his men, many of whom were citizens of the United States, to the mercy of the provincial government, and left the enterprise to its fate.

In 1811 the inhabitants revolted from the Spanish yoke, and declared themselves independent. The declaration bears date July 5th, 1811, 35 years and 1 day after that of the United States. The representatives justified the revolution on the ground of Ferdinand VII. having resigned his rights as king of Spain, at Bayonne, to the common enemy of the human race. Since the declaration of independence, there has been an almost constant struggle between the patriots, and the royalists assisted by troops from the mother country. The contest still continues, and is attended with various success.

Aborigines.] All the Indians of this country, when it was first explored, were divided into independent tribes, containing, usually, from 1000 to 10,000 individuals. The *Caraccas* were the most numerous nation. They occupied the site of the city of Caraccas; and, in 1556, within a circuit of 40 or 50 miles, were computed to amount to 150,000, under the control of upwards of 30 caciques. The *Quiriquiris* lived eastward on the banks of the Tuy. The *Cumanagotos* appear to have possessed the whole coast between the rivers Venare and Guarapiche. The *Guaraunos* were between this latter river and the southern mouth of the Oronoko. The *Caraihes*, *Caribs*, or *Caribbees*, were between the Oronoko and the Essequibo; they were also numerous in the interior. The *Oronokos* occupied the banks of the river above the Delta. The *Omegas* were probably little inferior in numbers to the *Caraccas*, and dwelt around the lake of Parima. The *Ottomaques* inhabited a very extensive tract along the high grounds of the Oronoko above the Apure; also the banks of the Meta and Casiquiari. The *Goahiros* lay W. of lake Maracaibo, and were among the most ferocious of the maritime Indians.

Several of these tribes are still unsubdued. The *Goahiros* occupy a tract on the coast of more than 30 leagues square, between lake Maracaibo and the province of Rio de la Hacha, in New-Granada. They allow no missionaries among them, and are brave and powerful. Their numbers, in Caraccas, amount to 30,000; all of whom are under a single cacique. The nation, both in Caraccas and New-Granada, it is said, can bring 40,000 effective men into the field. Their troops are all cavalry, each carrying a carbine, cartridge box, bow and quiver. They trade with the English of Jamaica, and are hostile to the Spaniards; thither they send their children to learn the English language and the art of war. At present their chief occupation is plunder. The *Cocinas* are a small tribe, N. of Maracaibo, tributary to the Goahiros.

The *Omegas*, including the numerous tribes around the lake of Parima, are as yet chiefly unknown. According to the best information they are numerous and warlike, and occupy a very extensive country in the eastern part of Spanish Guiana, particularly between lake Parima and the high grounds of the Essequibo.

The *Guaraunos* are now chiefly confined to the Delta of the Oronoko. In the numerous islands, which, for 40 leagues, clog the mouth of that noble river, they have found a secure retreat. They are independent, but peaceable. Their numbers amount to about 8000.

The *Caraibes* now claim the whole coast of Spanish Guiana, from the Oronoko to the Essequibo. They have always been hostile to the Spaniards, and were always friendly to the Dutch colony, east of the Essequibo. By the permission of the *Caraibes*, the Dutch had advanced from the mouth of the Essequibo to cape Nassau, about 15 leagues; although the river was by their treaty with the Spaniards, the boundary of Dutch Guiana.

The *conquered Indians* are treated by the Spaniards with great lenity and kindness. They live in villages, and are governed by their own caciques.

Religion.] The tribunal of the inquisition at Carthagena had the superintendency of Caraccas.

There are 1 archbishopric and 2 bishoprics in this territory.

The number of *secular* clergy, formerly very great, is greatly diminished; and that of the monks in a much greater proportion. In the late declaration of independence, the representatives avow an unalterable determination to live and die in defence of the Catholic religion. This will therefore probably continue the national and established religion. All others are, however, tolerated. If the civil and religious liberty of this country continue any great length of time, the Catholic religion will cease to be predominant; for it never has flourished in a free country, and never can.

Missions.] The first successful attempt to establish missions among the Indians of this country, was about the year 1655. After converting the Indians on the coast to the Catholic faith, the missionaries advanced gradually into the interior, crossed the Oronoko, and at length reached the Negro, a branch of the Amazon, on which they have establishments. They now occupy all the ground between these remote extremes. Those in Piritu and the lower parts of the Oronoko, received from Spain \$150 per annum; and those on the upper Oronoko and the Negro \$200.

The rest of the province of Cumana has long been assigned to a mission of Arragonese capuchins. The Indians of the plains are at present all Catholics; those of the mountains are unconverted. These missionaries are found in all the villages between Barcelona and the Oronoko, and lately received each \$111 per annum.

The mission of Venezuela was established about the same year. Its success was almost unexampled. In 4 years, missionary stations were established at 16 different towns and villages; great numbers of missionaries were constantly employed; 22 tribes, each using a different dialect, after no long period, became Catholics; and 8 or 10 cities and villages were founded. In a word, this mission had the merit of completing the civilization of the whole province, from the Caribbean sea southward, to the Oronoko; and thus soon rendered itself unnecessary. The Indian villages are now committed to the doctrinal curates, except a few on the Apura still in the hands of Andalusian capuchins, who lately received \$50 per annum.

A mission of capuchins from Navarre was long since established at St. Faustino on the S. W. and Perija on the W. of lake Maracaibo. It was formerly much more efficient than of late. The salary of each missionary is \$150.

In the environs of Varinas, there is a mission of jacobins, dependent on Santa Fe.

The mission of Guiana commenced in 1725. Thirty Catalonian capuchins were sent there that year by order of Philip V. Their labors caused the formation of more than 40 villages. Considerable numbers, even of the Caribes, have been converted to the Catholic faith. These capuchins possess immense droves of horned cattle. The number of these in 1804, was about 150,000. The salaries of this mission were withheld after 1791, on the ground of their being unnecessary; though each missionary was entitled by law to \$150 yearly.

Government.] Previous to the late revolution of Venezuela, the government was entrusted to a captain-general and a royal audience.

Population.] No general census has ever been taken of the inhabitants of this country. Depons, from the best data in his possession, estimated the population in 1804 as follows :

Provinces.	Whites.	Slaves.	Freedmen.	Indians.	Total.
Venezuela, including Varinas	100,000	150,000	200,000	50,000	500,000
Maracaibo	20,000	30,000	40,000	10,000	100,000
Cumana	16,000	24,000	32,000	8,000	80,000
Guiana	6,800	10,200	13,600	3,400	34,000
Margarita	2,800	4,200	5,600	1,400	14,000
	145,600	218,400	291,200	72,800	728,000

From what is afterwards said we suppose that the independent Indians are not included in this account. They probably outnumber those that are subdued.

Revenue.] The finances of this country were, in 1777, placed under an intendant general, who had subordinate intendants in each province. The taxes were laid merely on profits or rents; and were very numerous, and very badly managed. Depons gives the following statement of the receipts and expenditures for five years :

Years.	Receipts.	Expenses.
1793	\$1,312,188	\$1,303,583
1794	1,561,931	1,639,900
1795	1,443,056	1,549,874
1796	1,389,804	1,049,247
1797	1,040,788	1,886,363
Total for 5 years	6,747,766	7,428,967
Average	1,349,553	1,485,793

In this estimate are not included the receipts from bulls, which annually produced \$26,000; nor the duties on tobacco, which yielded \$700,000. So much of the tobacco tax as was necessary to make up the deficit of the other taxes was retained by the government, the

rest was remitted to Spain ; not, however, in specie, but in drafts on Cadiz. The specie in circulation, in 1804, was estimated at \$3,000,000 ; about one quarter in clipped money.

Army] The whole number of troops in the army, in 1804, was 13,136, of which nearly half were blacks.

Nothing like a navy was then kept on the coast, except a few shallops, all of which could not have resisted a single frigate.

Manners and Customs.] The *whites* mentioned in the table include the *chapetones* and the *creoles*. The *freedmen* include the *mestizoes*, most of the *mulattoes*, and a few *blacks*. The *slaves* comprise most of the *blacks* and a few *mulattoes*.

The number of the natives of Spain in Caraccas, has always been small ; the court having laid many restrictions on emigration. The whites are therefore composed chiefly of creoles.

The whites marry very young ; boys often at 14 or 15, and girls at 12 or 13. A young man not married at 20 is thought dilatory. Parents have little or no control over their children, as to marriage. The laws, however, give wives a strange control over their husbands. A husband must ask his wife's consent to take a journey, and must come home on the day appointed, or the magistrates will order him back. Every morning and evening the children of all classes and colors ask and receive on their knees the blessing of their father and mother. The same ceremony is repeated during the day, whenever the parents or children return from abroad, and enter the house ; and whenever they see their uncles and aunts.

The minds of the creoles arrive early to maturity, but their vigor is soon broken by indulgence. They are universally languid and unenterprising, ignorant and superstitious. All the inhabitants are excessively litigious, and the number of lawyers is great beyond all proportion.

The Indians of this country have narrow foreheads, eyes of middling size ; black, lank, and long hair, sharp noses, large mouths, thick lips, broad faces, and large heads. Their color is copper. Their limbs are large and muscular, but not strong. The common stature is about 5 feet ; among some of the tribes, from 5 to 6. They are generally lazy, taciturn, thoughtless, stupid, and false. The wild Indians on the coast are more ferocious, than in the interior. Some of them are cannibals. They are fond of war, and rank treachery and perfidy among military virtues. Their victories have always been gained by treachery, never by valor. The Caribes alone attack their enemies face to face.

All the tribes believed in the immortality of the soul. The same persons are their priests and physicians. They are believed to be acquainted with magic and sorcery. The funeral solemnities of the tribes are various. Polygamy is practised among all the tribes, except the Ottomaques. Married women are extremely oppressed, and are compelled to perform all the labor of the house and of the field. The Caribes, in cases of adultery, publicly put to death both of the offenders. Retaliation is the common punishment in the other tribes. In some, however, husbands exchange wives for a limited period.

Towards the civilized Indians the laws are lenient. A quantity of land is always allotted them. They are not compelled to execute any of their contracts with Spaniards. To be baptized, they need only assent, by signs or words, that drunkenness is a sin; that idolatry, superstition, and falsehood, are mortal sins; and that fornication, adultery, incest, and uncleanness, are horrible sins. The confessions of a converted Indian are often ludicrous. When directed to kneel, he squats upon the ground; and, instead of acknowledging the sins, which the confessor charges on him, stoutly denies them, till the confessor brings witnesses to prove them. He then owns them, and goes away cursing those who gave the priest information. They are all excessively fond of ardent spirits, and are habitually addicted to lying and stealing.

Language.] The language of the creoles is a corrupt Spanish, with many Indian words intermixed. Few of them understand its grammar. They usually speak it in a soft, languid manner.

Literature.] There is a seminary at the city of Caraccas, consisting of a college and a university united.

The system of education pursued here is very defective. The boys are not taught their own language nor arithmetic, and they never learn either. The books which they study are, the Latin grammar of Nebrija, the philosophy of Aristotle, the institutes of Justinian, the *Curia Philippica*, and the theological writings of Conet and Larraga.

Cities and Towns.] CARACCAS, the capital of the republic, was founded, in 1567, by Don Diego Losada. It is built in a valley, which extends from E. to W. 4 leagues, between the mountains of that vast chain, which coasts the sea from Coro to Cumana. This valley has an elevation of 406 toises, or 2598 feet above the level of the sea. Mountains of equal height lie on the N. and S. at a small distance from the city. Its site is a square with a side of 2000 paces; and its surface every where uneven and irregular, just as nature left it. The houses are well built; some are of brick; but the greater part of masonry, in frame work, after the manner of the Romans. This is made in the following manner. They prepare a kind of mortar, called *tapia*, the best sort of which is composed of lime and river sand, with flints or small pebbles intermixed; the poorest sort, of sand and earth, with a very small portion of lime. This is placed in a strong frame of boards 5 feet long and 3 broad without a bottom, and made extremely hard and solid by beating with a large pestle. Successive layers of this composition form the sides of the house. The best sort is very enduring, and, when rough cast and whitewashed, looks as well as if built of hewn stone. The roofs are sharp, or angular, and are covered with curved tiles. The houses are, in general, neatly and even richly furnished. The parish certificates gave a population in 1802 of 31,234; but the whole population was in fact between 41,000 and 42,000; of whom a fourth were whites, a third slaves, a twentieth Indians, and the rest freedmen. These last are artisans. The number of servants is very great. Beggars throng

the streets. Thefts and assassinations are frequent; the last are committed chiefly by the Europeans. The police is ill administered. The climate of Caraccas is delightful. The temperature varies, in winter, from 52 to 73°; and, in summer, from 69 to 85°. It lies in lat. 10 31 N. and in lon. 66 43 W. On the 26th of March 1812, this city was partly destroyed by an earthquake, and 12,000 persons were buried in the ruins.

CUMANA, a quarter of a league south from the gulf of Cariaco, on a sandy, dry soil, was built in 1520, and is the oldest city in the whole of Terra Firma. The river *Mansunares* waters it on the south. A hill lies back of the town, and extends along the whole eastern side. There is one church and 2 monasteries. It contains 24,000 inhabitants, chiefly creoles. They are industrious and enterprising. This city is very frequently visited with earthquakes. The climate is warm, but healthy. Lat. 10° 37 37 N. lon. 64° 10 W.

MARACAIBO is situated on the W. bank of the lake of Maracaibo, or rather of the strait, which connects it with the gulf of Maracaibo; and about 6 leagues from the northern extremity of that strait. The principal part of the city is on a small bay, setting up, westward, one league from the strait; the other part is to the N. on the strait itself. The number of inhabitants was 22,000, in 1801, when the town received an addition of 2000 from St. Domingo. About 5000 are slaves, 5000 freed persons, and the rest whites. The only water to be had in the town is the water of the lake. The town is subject to terrible thunder storms, and occasionally to earthquakes. Lat. 10 30 N. lon. 71 46 W. 140 leagues from Caraccas.

BARCELONA was founded in 1634, by Don Juan Urpín. It is built on a plain, on the left bank of the Neveri, a league from its mouth. It has 1 parish church, a hospital of Franciscans, and 14,000 inhabitants, of whom half are whites. Lat. 10 10 N. 20 leagues from Cumana.

GUANARA was founded in 1593, and stands on the Guanara, a branch of the Portuguese river, one of the tributaries of the Apura. Population 12,300. The situation of the town is delightful. Lat. 8 14 N. lon. 69 55 W. 92 leagues S. S. W. from Caraccas, and 24 S. E. from Truxillo.

MERIDA was founded in 1558, in a valley 3 leagues long, and $\frac{1}{2}$ of a league broad. Population 11,500. Lat. 8 10 N. lon. 71 25 W. 80 leagues from Maracaibo; 140 S. E. from Caraccas; 25 from Varinas.

BARQUISIMETO was founded in 1552. It stands on an elevated plain, which is open to every breeze. Population 11,300. The inhabitants are chiefly planters. Lat. 9 45, 150 leagues N. N. E. from Santa Fe.

Tocuyo, 15 leagues S. W. of Barquisimeto, stands in a valley. Population 10,200. Lat. 9 35 N. lon. 70 20 W.

Coro stands in a dry, sandy plain, at the bottom of the gulf of Coro, and 2 leagues S. of the isthmus, which connects the large

PENINSULA of Paragoana with the main. The harbor has a bold shore, admits the largest ships, and opens into the bay, 1 league from the town. It contains 2 parish churches, 1 monastery, and 10,000 inhabitants. Lat. 10 8 N. lon. 70 5 W. 55 leagues from Maracaibo.

SAN CARLOS is 60 leagues S. W. of Caraccas, and contains 9500 inhabitants.

VALENCIA lies half a league W. of the lake of Valencia. Its site is a beautiful and fertile plain. Population upwards of 8000. Lat. 10 9 N. lon. 68 25 W.

TRUXILLO is built between two mountains in a narrow ravine, which has the shape of a coffin. It was founded in 1556, and in 1678, was destroyed by the buccaneer Gramont. It contains a population of 7600. The inhabitants are chiefly occupied in husbandry, and are afflicted with goiters. Lat. 8 40, 20 leagues from Merida, and 30 from Guanara.

PORTO CAVELLO has the best harbor in Spanish America. It is defended from every wind, and is deep, convenient, and spacious. The population is 7500. The whites are chiefly engaged in commerce, and the town is the emporium of a wide extent of country. Fresh water is conducted by canals from a neighboring river. On the S. side of the town are extensive marshes, which render it extremely unhealthy. Lat. 10 20 N. lon. 68 10 W. 30 leagues from Caraccas.

ST. THOMAS, the capital of Guiana, is on the S. bank of the Oronoko, 90 leagues from its mouth. It contained in 1803, 6575 inhabitants. Ships go up the river to the town in from 15 to 30 days. The river's bed is here full of rocks, shelves, and sands. The climate is tolerably healthy.

CURIAO stands on a river of the same name, which falls into the gulf of Curiaeo. The inhabitants, 6500 in number, are chiefly occupied in raising cotton. Ten leagues E. N. E. of Cumana.

LA GUIRA, the port of Caraccas, is more frequented than any on the coast. The road is open to every breeze, and the depth does not exceed 8 fathoms, at a quarter of a league from the beach. It has one parish church, and contains 6000 inhabitants. The road from Caraccas to La Guira is cut straight over the mountains. The distance is 5 short leagues, which loaded mules perform in 5 hours, and under the saddle in $3\frac{1}{2}$. The ascent from La Guira to the top of the mountain is 640 toises, or 6095 feet, and the descent to Caraccas 234 toises, or 1497 feet. In wet weather the road is extremely laborious.

VARINAS is in lat. 7 40 N. among the tributaries of the Apura, and contains 6000 inhabitants.

Roads.] The roads of this country have hitherto been extremely neglected. Bridges are scarcely known except in the towns.

Manufactures and Commerce.] The most important manufactures are those of tobacco, indigo, and sugar.

The commerce of the country was never of any consequence, till 1634, when the Dutch seized on Curraçoa. From that time, for

a whole century, the Dutch carried on a very important contraband trade with the inhabitants; and of 65,000 quintals of cacao, the annual produce of the province, only 21,000 were exported in the regular channels. In 1728, some Biscayan merchants were formed into a commercial company, called the company of Guipuscoa; and, in 1734, it was permitted to send to the province as many vessels as it pleased. From 1730 to 1743, the company shipped to Spain 858,978 quintals of cacao, and lowered the price from 80 to 45s.

The company kept 10 armed vessels on the coast, at an expense of \$200,000. In consequence of gross abuses, which afterwards crept into its management, it was dissolved in 1773. A commerce, with few restrictions, was afterwards permitted, by the council of the Indies, between many of the ports of Spain and La Guira, and at length with several others in the province. The exports, in 1796, from Spain to La Guira, the only port at that time thrown open, were as follows:

In free and national articles	\$932,881:75
In articles of contribution	753,442:37 $\frac{1}{2}$
• In foreign articles	1,429,487:37 $\frac{1}{2}$
	<hr/>
	\$3,118,811:50

The duties on these articles, on entering, amounted to \$281,328.

The exports to Vera Cruz were also considerable; but the contraband trade with the foreign colonies of other nations was very great, particularly with Jamaica, Curraçoa, Trinidad, and Surinam. The amount of imports in this trade, in 1804, was estimated at \$937,500. This we presume was exclusive of those from Jamaica; for, in 1801, no less than 400 vessels were employed in the contraband trade with that island. Porto Cavello alone employed 100; and exported in that year to Jamaica articles to the amount of \$1,500,000. The capital articles of export from the country are tobacco, cacao, indigo, cotton, mules, hides, and coffee.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE, FACE OF THE COUNTRY, SOIL AND AGRICULTURE, RIVERS, LAKES, BAYS, PENINSULAS, SEA, MOUNTAINS, BOTANY, ZOOLOGY, MINERALOGY, MINERAL WATERS, NATURAL CURIOSITY.

Climate.] THE towns on the coast, which enjoy a regular land and sea breeze, and those near and on the mountains, have a milder

temperature than would be expected from their tropical situation. The greater part of the country, however, is scorched by a vertical sun without any thing, in the dry season, to screen it from its rays. We know of no place that has a more delightful temperature, throughout the year, than the city of Caraccas.

Winter and summer are the only seasons. Winter commences in April, and lasts till the first of November. It is merely the rainy season, and is colder only in consequence of the rays of the sun being hidden by clouds. During this season it rains one day with another for the space of 3 hours, and oftener in the evening than in the morning. Some days however, are entirely dry, and in others it rains incessantly. During winter all the rivers are in a state of inundation, and the low plains become temporary lakes. In summer, rains occur but occasionally. Terrible storms of thunder and lightning were common throughout the country before 1792. During the subsequent 12 years the rains were more abundant, but there were few thunder storms. No earthquakes had been felt since 1779, till December, 1797. Since that time they have been frequent, particularly in the province of Cumana; that of December, 1797, threw down almost all the stone edifices in the city of Cumana. Four smart shocks were felt at Caraccas in May and July, 1802, and in March 1812, a part of the city was buried by an earthquake, in which 12,000 persons perished.

Face of the Country.] The northern part of this country, near the sea, is mountainous. The land between the Guarapiche and the Oronoko is a mere level. North of the Oronoko, commences a plain, at first narrow, but gradually widening westward, as far as the mouth of the Apura. There the Oronoko bends to the south, and the plain in that direction becomes at once of unknown width. Westward it reaches 4 or 5 degrees of longitude, to the mountains of New-Granada. In the rainy season, the northern plain of the Oronoko is overflowed, to an immense extent, and nothing is then discoverable but here and there a hillock, and the tops of the tallest trees. The country on the Oronoko, in Guiana, is also a plain; but the rest of that province is not, as yet, sufficiently explored. We only know that it contains extensive plains, and several broad ranges of mountains.

Soil and Agriculture.] The soil of this country is described as generally rich. The vallies, between the mountains north of the Oronoko, are fitted for any species of culture; and are the seat of most of the valuable plantations. That of Aragoa, in 1786, contained 186 plantations. The plains of the Oronoko furnish immense pastures, and numberless herds of cattle are dispersed over their whole extent. The land near and on the coast of Venezuela is generally good; as is that of Cumana, from the Venare to the city of Cumana. But the whole of the coast eastward, as far as the Guarapiche, is dry, sandy, and ungrateful. Much of the province of Maracaibo is of the same kind. A rich tract, however, commences 25 leagues south of the city, and all that lies south of the lake is among the best land in the country.

The soil of Guiana is described, as throughout, very fertile, and of a most active vegetation. Lower Guiana, which has been most explored, is said by Depons to be exceeded in richness by few lands in America.

The agriculture of this country has always languished. The great objects of agricultural attention are cacao, indigo, cotton, sugar, and tobacco. The cacao is indigenous, and till 1774, was the only plant cultivated. All the cacao plantations lie either north of the mountains, which coast the sea, or in the vallies between the mountains.

The cacao of this country is the best in the market. That of Orituco, particularly, is of superior weight and excellence.

Indigo was introduced into cultivation, in 1774. It is cultivated chiefly in the vallies of Aragoa.

The culture of cotton was introduced in 1782. The plantations are found in many of the vallies. It is here planted in May and June, and blossoms always in November. This is the upland cotton of Carolina. That of coffee was not known here till 1784. Sugar is raised in large quantities, but chiefly for home consumption. It is of an indifferent quality. Tobacco is grown in the vallies.

Cattle, in Guiana and on the plains of the Oronoko, constitute almost the exclusive object of agriculture.

Rivers.] The Palmar and Sulia are the chief tributaries of lake Maracaibo.

The Tucuyo rises 15 leagues south of Carora, and runs northeast from that town 50 leagues. It is navigable to Banagua, 40 leagues. It flows through a fertile country abounding in forests.

The Aroa and Yaracay run northeast, each 40 leagues, and empty, the first 10, the latter 15, east of the Tucuyo. The Yaracay is navigable to within 2 leagues of St. Philip.

The Tuy rises in the mountains of San Pedro, 10 leagues southwest of Caraccas. It runs east about 50 leagues, and is navigable to St. Lucia.

The Unare, or Venare, separates the provinces of Caraccas and Cumana, and runs north, between 30 and 40 leagues. It is navigable 6 leagues to Santa Antonia.

The Neveri runs west or north 20 leagues, and empties just below Barcelona. It is too impetuous to be navigable above that town.

The Manzanares is only distinguished by having Cumana on its banks, a quarter of a league from the sea. Its mouth is 10 leagues east of the Nevari, and 27 of the Unara.

The Guarapiche rises on the east side of Mount Brigantin, and runs northeast to the gulf of Paria. It is about 45 leagues in length, and is navigable to the fork of Fantarna.

The Oronoko has already been described. Its upper branches on the left side, above the Meta, are not in this country, and the Meta runs chiefly in New-Granada. The Apura, the next branch on the same side, rises in the mountains south of lake Maracaibo, and runs southeast and east about 520 miles, falling into the Oronoko by several mouths, which embody a number of large islands. About 20 leagues from the Oronoko, its northern arm receives the St. Joan

from the north, and still lower down the Guarico, both rivers of the province of Venezuela. The Apura is navigable upwards of 180 miles.

The Caura is said to rise in the mountains of Parima, near the sources of the Oronoko. Its course is west of north, and it falls into the Oronoko about 40 leagues above St. Thomas. The Caucapana, a smaller stream, empties from the same side about 20 leagues below. The Caroni, far the largest southern tributary, heads in the eastern part of Guiana, and empties about 20 leagues below St. Thomas. According to the map of Depons, its length exceeds 400 miles.

The Guani is the largest branch of the Essequibo.

Lakes.] Lake Maracaibo is in the western part of this country. Its form is nearly that of a decanter, lying from south to north, with its neck communicating with the gulf of Maracaibo. Its length, from the mouth to the southern extremity, is 50 leagues; its greatest breadth 30; and its circumference 150. It is easily navigated by vessels of the greatest burden. Hurricanes are not frequent. Its waters are usually fresh, and fit for drinking. A strong north wind renders them brackish, as far as Maracaibo. Here the neck of the lake is 3 leagues wide.

The lake of Valencia, the *Tacarigua* of the natives, from E. N. E. to W. S. W. is $13\frac{1}{2}$ leagues long; and, in the widest part, 4 broad. It lies in a valley, surrounded with mountains, except on the west. It is about 6 leagues from the sea, from which it is separated by inaccessible mountains. It receives 20 rivers, and has no visible outlet. Within a few years its waters have seriously decreased. The land deserted by it is of astonishing fertility. Its water is heavy, and of a nauseous taste. It contains numerous islands, and is not easily navigated.

Bays.] The large bay, through which the lake of Maracaibo opens into the main sea, puts up between the peninsulas of Cocinas and Paragoana. In some of the maps it is called the *Lake of Venezuela*; in others the *Lake of Maracaibo*. The latter is obviously the most proper. Its greatest width is upwards of 120 miles, and the width of its mouth, between capes Chichibatoa and Macolla, 40.

The bay of Coro is triangular, and is on the east side of the peninsula of Paragoana.

The bay of Tacaragua is a league and a half east of the Tuy. It is 7 leagues long, and abounds in alligators and shell fish. A quicksand at the mouth renders it inaccessible from the sea.

The gulf of Cariaco extends 10 leagues from east to west; and, in the widest part, is 4 leagues broad. In the middle its depth is from 80 to 100 fathoms. Its waters are as placid as those of a lake, because they are sheltered by mountains from every wind except from the sea breeze, which blows S. W. by W.

The gulf of Paria, called by the Spaniards *Triste*, has Trinidad on the east, and the coast of Cumana on the northwest, west, and south. On the north it opens into the main ocean, between point Paria on the west, and point Blanco on the east. This gulf is 25 leagues from

east to west, and 15 from north to south. Its depth varies from 8 to 30 fathoms. The Guarapiche and several mouths of the Oronoko fall into this gulf. It opens on the southeast between capes Foletto and Ycacos, into the channel of Trinidad. It is extremely difficult to enter the gulf, through either opening, on account of the immense force of the waters of the Oronoko.

Peninsulas.] The peninsula of Paria extends eastward about 25 leagues, on the north of the gulf of Paria. The chain of mount Brigantin passes through it, and cape Paria is its eastern extremity. The peninsula of Araya is about 7 or 8 leagues long, and every where narrow. Cape Araya is its western extremity. Both of them are barren. The peninsula of Paragoana lies west of the bay of Coro, and stretches from northwest to southeast 20 leagues. The isthmus, 2 leagues north of Coro, is only 1 league wide; and the peninsula itself 12 leagues. It is inhabited by Indians, and a very few whites, and is fit only for grazing. Great numbers of cattle were formerly raised here, and smuggled over to Curraçoes. The peninsula of the *Cocinas*, on the other side of the gulf of Maracaibo, is larger, and inhabited only by Indians, who are subject to the *Goahiros*. Cape de la Vela, the most northern point of South-America, is the northwest extremity of this peninsula.

Sea.] The *Caribbean* sea has been mentioned, as washing the northern coast. The English gave it this name from the *Carabes*, who occupied the Caribbean islands, and a part or the whole of this country. The Spaniards and French call it the North sea. The tides, from cape Paria to cape de la Vela, are irregular, and scarcely perceptible. East of cape Paria, they are very powerful. The regular wind on the coast is a sea breeze, by day, from northeast by east; and a land breeze, by night, from southwest by west. The first, however, is constant at sea. A species of worm, called *Taret*, abounds in all the rivers, ports, and roads, which will destroy a ship, unless graved every three months. All the ports and roads, except Porto Cabello, are exposed to a monstrous surge or rolling of the sea, which is extremely inconvenient and dangerous.

Mountains.] It has heretofore been remarked that a chain of mountains, called the *mountains of Venezuela*, branches from the Andes near Quito, in a N. N. E. direction, and makes for Venezuela. Near the western border of the province of Varinas this chain divides. The left branch, called the *mountains of Maracaibo*, pursues a northerly course, and passes west of lake Maracaibo, terminating near cape de la Vela. This is the boundary between the province of Maracaibo and New-Granada. The principal branch runs N. N. E. as far as Barquisimeto, and thence its direction is, on the whole, nearly east to the peninsula of Paria. Its breadth is commonly 15 leagues; sometimes 20; and no where less than 10. Its common height is from 4000 to 5000 feet. The Pichaco, near Caracas, is 7688 feet, and the Tumeriquiri 5610. Near St. Philip it first approaches within a few leagues of the coast; and, a little eastward, the ridge passes between the lake of Valencia and the sea. Between the Tuy and the Venare, it verges to the south; and, through the greater part of the province of Cumana, the ridge is from 30 to 35

leagues from the coast. After its northern bend, near the sources of Guarapiche, it is called the *Mountains of Brigantín*; and, in the remainder of its course to the peninsula of Paria, it pursues a N. N. W. direction. The great northern branches of the Oronoko all issue from this range.

We have nothing to add to our former account of the mountains of Parima, a chain that branches from the Andes near Popayan, and traverses the province of Guiana.

Botany.] Immense forests every where overspread the mountains of Venezuela. These furnish the best timber for ships and houses. The Pardillo, and a very hard oak, the *quercus cerus* of Linnæus, are used for door frames and door posts; cedar, black, yellow, and red ebony are abundant; mahogany is not very common, and is of an inferior quality. Iron wood grows every where. Brazil wood and fustic are the only coloring woods yet discovered. The *quinquina* tree, which yields the Peruvian bark, the tamarind tree, the sarsaparilla, and the guaiacum, are the most important trees and plants of a medicinal nature.

Zoology.] The *cayman* is of the crocodile species, but larger and more sluggish. It is from 15 to 18 feet long. Its skin is covered with strong scales, impenetrable by a ball. It abounds in the Oronoko. The *manati*, a species of sea cow, abounds near the mouth of the Oronoko. It is of the size of an ox, and yields a great deal of oil.

The *tiger* is common in the forests of Guiana. Those of Venezuela abound with birds, distinguished for the melody of their notes, and the richness and beauty of their plumage.

Mineralogy.] Gold mines have been discovered in various places, but none of them are now wrought; one at Apa, near the banks of the Tuy, was very rich, but its very place is now forgotten. Several *copper* mines, of a superior quality, are wrought in the jurisdiction of St. Philip. Besides supplying the country, 170 quintals had been annually exported previous to 1804.

Salt abounds on the coast, but the most abundant salt pit is that of Araya, which may vie with any in America, not excepting Turk's island. The salt is of a beautiful whiteness, and when dug up consists partly of fossil, and part of mineral salt. From 14,000 to 15,000 quintals are annually dug, but the pit is capable of yielding at least 100 times that quantity.

Mineral Waters.] The country abounds with them. They are of various descriptions, as the hot, the cold, the ammoniacal, the ferruginous, the nitrous, and the acidulous. A spring in the vallies of Asagua has a temperature above 72°, and several approach to the heat of boiling water.

Natural Curiosity.] In the mountain of Tumeriquiri, there is an immense cavern, called the cavern of *Guacharo*, famous among the Indians. A river, of some magnitude, issues from its mouth, and millions of nocturnal birds have chosen it for their habitation. The Indians suppose that it is the passage, through which the soul goes to the other world.

ISLAND OF MARGARITA.

This island lies N. of the peninsula of Araya, from which it is separated by the channel of Margarita, 8 leagues in width. It lies between lat. 10 50 and 11 10 N. and between lon. 63 50 and 64 30 W. The island consists of two peninsulas (the eastern of which is the largest) connected by a narrow isthmus. Point Arena is the western cape, cape de la Isla, the northern, and point Mangle, the southern. The island derives its name from the pearl fishery on its coast. Columbus discovered it in 1498. Charles V. ceded it to Marceau Villalobos in 1524, and the Dutch burnt the capital in 1662. The population of the island is stated, by Depons, at 14,000, viz. 5500 whites, 2000 Indians, and 6500 slaves and free people of color. This island was long a favorite resort, on account of the facility of carrying on the contraband trade. *Assumption* is the capital, and stands nearly in the centre of the island. Three other villages are called the Valley of St. John, the Valley of Margarita, and the Valley de los Robles or of Oaks. The best harbor, Pampatar, is on the E. S. E. Here are very strong fortifications. The second Dela Mar, is a league to the W. The third, Del Norte is on the N. side. Cotton hammocks and stockings are manufactured here of a very superior quality.

The soil is a sandy surface, a foot in thickness mixed with hollow and rotten madrepores. A little cotton and sugar is cultivated, but not enough to supply the inhabitants. A very valuable pearl fishery is carried on, on the S. coast, particularly between Margarita and the island La Coche. The Indians are the divers, and are compelled to work 3 months in the year, at a rial a day. The largest pearl ever known was procured here, and bought by the king of Spain. Its value was estimated at 25,000*l.* sterling. Great numbers of parrots, and other curious birds, are found here, and form a considerable article of commerce.

GUIANA.

THIS name is attached to the very large extent of country, between the mouths of the Oronoko and Amazon; an extent of sea-coast of 1100 miles. The Amazon bounds it on the S.; the Negro, on the S. W.; the Casiquiari and the Oronoko, on the W.; the Oronoko, on the N. W. and the ocean, on the N. E. and E. As the Negro and Oronoko unite by means of the Casiquiari, this whole tract is a real island, entirely separated by water from the rest of the continent. From the mouth of the Amazon W. N. W. to the mouth of the Apura a tributary of the Oronoko, it is about 1260 miles in length; and from the Negro to the ocean, about 700 in its mean breadth.

This country is divided into Spanish, Dutch, French, and Portuguese Guiana.

Spanish Guiana extends on the coast, from the Oronoko to the Essequibo. In the interior, it is bounded, on the N. W. W. and S. by the Oronoko; and on the E. by the Essequibo. It has already been described under the article *Venezuela*.

Dutch Guiana extends from the Essequibo to the Maroni, 350 miles along the coast. According to the map of Depons, it reached into the interior, on the Essequibo, about 220 miles, to lat. 4 15; and, on the Maroni, about the same distance, to the mouth of the Araoua, in lat. 3 15 N.

During the late European war, the whole of Dutch Guiana was conquered by the English. At the peace of 1814, the western part of this country, comprehending the coast between the Corantyn and the Essequibo was finally ceded to Great Britain. The remainder or eastern division was restored to the Dutch.

French Guiana extends along the coast from the Maroni to the Arowary, or Aracuari, 450 miles. The Maroni is its western boundary, as far as the mouth of the Araoua, below which it extended westward to the Essequibo; and by the treaty with Portugal, in Sept. 1801, France appears to have considered it as reaching to the Blanco or Parima. Its southern boundary is the Arowary to its source, in lat. 1 30 N.; and thence, a line running due W. to its western frontier. This last was agreed on between France and Portugal in 1801. Previous to that time, this province extended on the coast only to the Oyapoc; which empties just W. of cape Orange, only 220 miles from the Maroni.

Portuguese Guiana extends along the coast from the Arowary to the Amazon, about 120 miles. The Amazon is its southern boundary; and the Negro its southwestern. The parallel of lat. 1 30 N. separates it from French Guiana, as far as the Blanco; and thence westward, from Spanish Guiana, as far as the Negro.*

DUTCH AND FRENCH GUIANA.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT, BOUNDARIES, DIVISIONS, NAMES, HISTORY, ABORIGINES, POPULATION, MANNERS AND CUSTOMS, BUSH NEGROES, MISSIONARIES, CITIES AND TOWNS, COMMERCE.

SPANISH Guiana has already been described under the article *Venezuela*. Portuguese Guiana will be best considered in connexion

* That the parallel of lat. 1 30 N. is the boundary between Portuguese and Spanish Guiana, is concluded from the declaration of Humboldt, as quoted by Depons, that the Portuguese territory reaches nearly to fort Charles on the Negro. Fort Charles is a little N. of the parallel of lat. 1 30 N.

ion with Brazil. The remaining divisions, viz. Dutch and French Guiana will now be treated of, as one article. We prefer using the old name *Dutch* Guiana, although a part of the territory described under it now belongs to the English.

Extent] This extensive country, comprehending both Dutch and French Guiana, reaches, on the coast, from the Essequibo to the Arowary, 800 miles. Its length, in the S. from the ocean westward to the Essequibo, is about 500 miles. Its greatest breadth, in the W. from the Portuguese line northward to the ocean, is about 350. In the E. the coast tends gradually southward, and makes the width much less.

Boundaries.] On the N. and E. is the Atlantic; on the S. Portuguese Guiana; on the W. the Essequibo, which divides the territory from Spanish Guiana.

Divisions.] We have already mentioned, that the western and smallest part of this country lately belonged to the Dutch; and the eastern to the French. The Dutch territory was divided into three districts: Surinam, on the E. extending from the Maroni to the Corantyn, 180 miles; Berbice, in the middle, between the Corantyn and Abary creek, 70 miles; and Demarara, on the W. between Abary creek and the Essequibo, 100 miles. Of these divisions Surinam now belongs to the Dutch, and Berbice and Demarara to the English. Demarara province was subdivided into two districts. Essequibo on the W. and Demarara on the E. We know not whether French Guiana has been subdivided.

Names.] The name *Guiana*, has long been given to the whole country between the Oronoko and Amazon; but we know neither its origin, nor the time when it was first applied. The Dutch colony has most generally been called *Surinam*, a name derived from the river, on which Paramaribo, the largest town, is situated. The French colony is generally called *Cayenne*, the name of a city in Normandy, first given to the capital, and thence transferred to the colony.

History.] Vincent Pinzon discovered Guiana in 1500. He traversed the whole coast from the Amazon to the Oronoko. In 1605, Robert Harcote, an Englishman, planted a colony at the mouth of the Oyapoc; and, on his return, obtained a patent for the whole of Guiana. The scheme, however, miscarried. A small colony was planted on the Surinam, by Robert Marshal, in 1634. In 1635, the French, under Bretigny, planted themselves on the island of Cayenne. They attempted, also, to settle Surinam, in 1640, but abandoned it the same year. The English planted themselves there the year following. The Dutch admiral, Binks, broke up the settlement at Cayenne in 1646. Charles II. granted Surinam to lord Willoughby in 1662. Two years after, the French reoccupied Cayenne. The Dutch, having been expelled from Brazil in 1662, drove the English from Surinam in 1667. In the latter part of the same year, John Harman, an Englishman, took Cayenne, and retook Surinam. They were restored in 1674; the former to France; the latter to Holland, in exchange for New-York. Surinam fell into

the hands of the English near the close of the last century, and was restored in 1802. It was taken again on the 4th of May, 1804, and restored. Cayenne was taken in 1809, and restored to France in 1814. Berbice, Demarara, and Essequibo were finally ceded to the English at the peace of 1814.

Aborigines] The Indians very far in the interior of Guiana are not known. Those near, and on the coast, constitute four distinct nations. The *Caraibes* are the most numerous, brave, warlike, and industrious. They reside chiefly on the coast in Spanish Guiana, between the Oronoko and Essequibo, though considerable numbers are found on the east side of the latter. They are of a middle stature, and a lighter complexion than any of the four, except the *Arrowauks*. Their language is manly and articulate, and pronounced with sharpness and vivacity. War, hunting and fishing are their chief employments: agriculture and domestic concerns are left to the women and children. The women cultivate the manioc and plantains; make the cassava bread and a liquor resembling ale; spin cotton; and weave and dye their hammocks. They live in villages; and by blowing a shell, a thousand may be collected in half an hour. They wear fish teeth, rounded and strung together, as ornaments. Their arms are bows, with poisoned arrows; and heavy clubs, made of iron-wood with sharp edges, which will divide the skull at a single blow. The Dutch used to bribe them to capture the interior Indians for slaves. They are always at variance with the Spaniards, and frequently commit hostilities upon their settlements on the Oronoko. They still retain a tradition of an English chief, who many years since landed among them, and encouraged them to persevere in their enmity to the Spaniards. It is said that they preserve an *English Jack*, which he left them, that they might distinguish his countrymen. This was undoubtedly Sir Walter Raleigh; who, in 1595, made a descent on the coast of Guiana, in search of the fabulous golden city of *Manoa del Dorado*, and conquered fort Joseph on the Oronoko. At the insurrection of the negroes of Berbice, in 1772, the governor hired them to assist the colonists. They fought very bravely, killed many of the negroes, and ate their bodies. They never however eat any of the human species, except their enemies taken or killed in battle. The colonists trade with them for canoes, of from 10 to 70 feet in length, formed of single trees, hollowed by fire; for cotton hammocks; for bees wax; for balsam Capoiba; for several kinds of curious woods; but chiefly for slaves: and in return give them fire arms, India cottons, hatchets, knives, fish hooks, combs, looking glasses, red coral beads, and glass beads.

The *Worrows* inhabit only the sea coast, chiefly between the Demarara and Surinam; the same are found on the Oronoko. They are larger and darker than the *Caraibes*, and have irregular, disagreeable features. They inhabit only the low, wet, marshy places, adjacent to the sea, and live chiefly on crabs and fish. They are slovenly, timid, and indolent; yet patient and contented.

The *Accawaws* live near the sources of the Essequibo, Demarara, and Berbice; resemble the *Worrows* in size, but are lighter,

and have less disagreeable features. They are all distinguished by a circular hole in the lower part of the upper lip, half an inch in diameter, in which is inserted a piece of wood of equal size, which is cut off externally almost even with the skin, while the inner end presses against the teeth. They are grave and reserved, artful and cunning. Their language is solemn and distinct, but harsh. Though not numerous, their skill in poisons renders them very formidable. Like the Caribes they make incursions into the interior for slaves, and the vicinity of their residence exposes them to frequent reprisals. To prevent this, all the avenues to their houses are guarded by sharp pieces of hard wood, planted in the earth and poisoned; except only one obscure winding path, known to their countrymen by private marks. They bring to the colonists slaves, the balsams *Cajouba* and *Arracocerra*, the roots of *hiarra* for fishing, the oil of *carraba*, various kinds of curious woods, monkeys, parrots, and parroquets; and receive the same things in return as the Caribes.

The *Arrowauks* live beyond the Worrows, 20 or 30 leagues from the sea. They are of a middle size and stature, straight and well proportioned. Their skin is whiter than that of the other tribes; their features regular and agreeable; their teeth white and even; lips thin; eyes black and sparkling; hair long, straight and black. Their furniture consists of two or three small stone pots, a large jar for making a fermented liquor, called *piwarree*; a flat stone, to bake on; several shells of gourds and calabashes; a hammock for each person; a hatchet and two or three knives; a small looking glass and a comb; a little arnotto paint; and a gourd filled with the oil of Carraba. Their arms are muskets, sharp clubs, and poisoned arrows.

We have already mentioned that the aboriginal inhabitants of all the West-Indies, except the Bahamas, were *Arrowauks*; and that the *Caribes* had driven them from all the Caribbean islands, except a part of Trinidad, long before the discovery of Columbus. Both of these nations of islanders were of Guianese origin, and the accounts already given of them still apply in many respects to their primitive stocks in this country.

Population.] According to the authorities quoted by Hassel, the population of French Guiana is 33,400; and that of Dutch Guiana (including the part now possessed by the English) 520,000 of whom 20,000 are whites and 500,000 blacks.* The population of Berbice according to a return made to the British parliament in 1811, was 25,959 viz. 550 whites; 240 colored, and 25,169 blacks. The district of Demarara is said to contain 3,000 whites, and 40,000 slaves. The province of Surinam is said to contain 6000 whites; and Stedman states the number of slaves at 75,000. Almost the whole, both of French and Dutch Guiana, is possessed by the aborigines. The settlements in the latter are chiefly on the rivers.

Manners and Customs.] The English and Dutch constitute the mass of the white population of the colony of Surinam. Germans, Prussians, Russians, Swedes, Danes, Spaniards, French, and Ameri-

* We believe that this estimate is much too high.

cans, make up the residue. The morals of all have been terribly relaxed by the climate. The wealthy creoles all have their harems, which are filled with black and mulatto women, procured in many instances from the Windward islands, particularly Barbadoes. As soon as a European arrives, he purchases one of these females to perform all the duties of a wife, except presiding at the table. The children are often sent to England, to learn some trade ; and return to practice it. The white women, both creoles and Europeans, are very licentious. Labor is here performed only by slaves. The whites are excessively indolent. Most of the whites of Cayenne are French. They are equally licentious in their manners with those of Surinam.

Bush Negroes.] These are a collection of wild negroes found in the interior of the Dutch colony. Their origin is to be traced to the year 1667, when the Dutch obtained possession of Surinam. Many of the English planters at that time removing their effects, considerable numbers of their slaves deserted, and ran into the woods. Here they were joined by other runaways. When the French attacked the colony, in 1712, the Dutch planters, to prevent an insurrection of their slaves, removed them into the interior. Many of them improved the opportunity to desert to the *Aucka* or *Bush* negroes. From that period they became a formidable body, and soon after engaged in open hostility with the colony. Their principal head quarters were the forests high up the Surinam. In 1761, peace was concluded with this body. In 1772, a most formidable revolt broke out among the negroes on the *Cottica*, which spread desolation over the most fertile parts of the settlement. The colonists were obliged to procure the assistance of the Caribes. Many of the negroes were killed. The rest retreated. Their numbers, in various parts of the Dutch colony, are, at present, very considerable ; far too great to be attacked, with success, by any force which the colony could muster. They are called the *Aucka* or *Bush* negroes, and are constantly increasing in numbers by the accession of runaway slaves.

Missionaries.] In 1816, there were in Dutch Guiana, 11 Moravian missionaries, 2 Methodist, and 3 in the employment of the London Missionary Society.

Cities and Towns.] PARAMARIBO is the largest town in all Guiana ; and stands in a pleasant gravelly situation, on the west bank of the Surinam, 15 miles from its mouth. The streets are all straight, and are planted with trees, such as oranges, limes, lemons, shaddocks, and tamarinds. The houses are chiefly of wood. The town contains 2 churches, and 2 synagogues. Von Sack estimates the population at 20,000 ; viz. 2000 Europeans, 3000 Jews, 4000 free people of color, and 11,000 slaves. The town is defended by a fort, called *New-Amsterdam*, near the mouth of the river.

CAYENNE lies in lat. 4 56 N. lon. 52 15 W. on the north point of the island of Cayenne ; which lies at the mouth of Cayenne river, and, on each side, is separated only by an arm of that river from the main. The town is seated on the western arm, which is here a league broad. The fort which commands it is strong enough

for any vessels, which can come within gun shot. The number of whites is about 1200, exclusive of the garrison; that of free blacks and slaves in proportion.

STABROOK is the chief town of Demarara. It stands on the east bank of Demarara river, near its mouth; and is built on the flat strand, amid various canals. The houses are of wood, two stories high, and stand on a low brick foundation. The rooms project in all directions to catch the luxury of fresh air, so that the ground plot is usually in the shape of a cross. All the public buildings are of wood. The population is stated, by Bolinbroke, at 1500 whites, 2000 free people of color, and 5000 slaves. There are no taverns. The inhabitants are hospitable. Fort William Frederic, at the mouth of the river, defends the town.

About 60 miles above Parimaribo, on the Surinam, there is a considerable colony of Jews, descended from Portuguese Jews, who were invited to settle here by the Dutch government. Their principal town is very populous, and is called the *Jew's Savannah*.

AMSTERDAM, a town lately founded, is the capital of Berbice, and stands on the river of that name.

OYAPOC is a small town on the west bank of Oyapoc river, defended by fort Louis.

Kourou is a settlement on the coast, 10 leagues northwest of Cayenne, which was undertaken by the command of the duke de Choiseul, in 1763. He sent a colony of about 12,000 persons unprovided with necessaries, and in the most rainy season of the year. The great body of them perished in a short period.

Sinamari is a small fort 5 leagues N. W. of Kourou.

Commerce.] We have no information respecting the commerce of the parts of this country belonging to the French and Dutch. The exports from Demarara to Great-Britain in 1807, consisted of 19,337 hhds. of sugar, 4,722 puncheons of rum, 23,604 bales of cotton, 12 390,102 pounds of coffee, and 1694 casks of molasses.

The value of the imports and exports from Berbice in 1809 and 1810, was as follows:

	<i>Imports.</i>	<i>Exports.</i>
In 1809	£193,663	49,662
1810	191,566	51,785

In 1812, there were 23,139 gallons of rum, and 9084 cwt. of sugar exported from Berbice to Great Britain.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE, FACE OF THE COUNTRY, SOIL AND AGRICULTURE,
RIVERS, MOUNTAINS, BOTANY, ZOOLOGY.

Climate.] THE climate is unhealthy; though less so than formerly. The year is divided into 2 wet and 2 dry seasons. December and January constitute the short rainy season. February and March the short dry one. The long rain occupies the four following months; the heaviest rains are in June. The four remaining months constitute the long dry season. Changes in the temperature are gradual. The greatest heat experienced in two years, from May 1805 to June 1807, was 91° ; the least 75. The sea breeze furnishes a constant affusion of delightful air, from 10 in the morning, to 5 in the evening.

The *leprosy* is a common disease here, and in all the tropical regions of America. The disease is universally deemed infectious, and lepers are separated from the society of mankind. They are sent into the woods, and there wear out a life of solitude. The disease is always incurable.

The *yaws* are spongy, fungus, yellowish, circular protuberances, infesting the whole body, between 1 and 3 inches in circumference, and so nearly contiguous, that the end of a finger cannot be inserted between them. A small quantity of yellowish pus appears at the extremity of each. All the negroes have it once, and some of the whites. It is communicated by the flies, that have been feasting on a diseased object, to those persons who have sores or scratches, which are uncovered. The backs of the negroes being often raw by whipping, and always uncovered, they scarce ever escape it. It is cured by mercury and camphor.

Guinea worms are found in the cellular membrane of the African negroes, and move through its cavities over the whole surface of the body. They are extracted with great difficulty, and sometimes prove fatal. Worms in the intestines are here extremely distressing. The West-India dry belly ache, intermittent fevers, and bilious putrid fevers are also among the more violent diseases.

Face of the Country.] The surface is almost every where flat, to a great distance in the interior. A narrow strip along the coast of Dutch Guiana is generally cleared, and plantations are found on the banks of all the rivers. The rest of the country is still forested. Much of the coast of Cayenne is marshy, and subject to inundations from the rivers. Few settlements are made in the interior.

Near the sources of the large rivers the country in both colonies is mountainous.

Soil and Agriculture.] All travellers agree in the surprising fertility of the soil, both of Surinam and Cayenne. It is generally a rich, fat, clayey earth. Sugar and coffee are the capital articles of agriculture, and after them cotton and cacao. Indigo, maize, cassia, and vanilla are also cultivated; and Cayenne pepper forms a considerable article of exportation from the French colony. According to Stedman there were, in 1774. between 6 and 800 plantations of sugar, coffee, cacao, and cotton in the province of Surinam, which yielded an annual produce of the value of more than a million sterling.

Rivers.] The Essequibo rises in the mountains of Parima, a little S. of the Portuguese line, and pursues a course W. of N. about 500 miles to the ocean; emptying by a mouth 3 leagues wide. It is deep and navigable. About 60 miles from the sea it receives the Guyani, a large river from Spanish Guiana. Fort Essequibo stands at the confluence. The cataracts in this river are about 200 miles from its mouth.

The Maroni is supposed to rise in the same mountains. The old Dutch line ascended it to lat. 3 15 N. above which we believe the river has not been explored. It is a large, navigable stream, but less than the Essequibo, emptying in lat. 6° N.

The Surinam, or Zeelandria, rises in a lower chain of the same mountains, and runs about 400 miles. It is navigable for ships of any size to Parimaribo, where it is a mile wide, and for sloops, 80 miles further, to the falls.

The Demarara runs nearly parallel with the Essequibo about 200 miles, and empties, a little E. of it, by a mouth 2 miles wide. Over a bar at the mouth, in the highest tides, there are 4 fathoms water.

The Berbice pursues a northeasterly course, as is said, of more than 300 miles, of which it is navigable 200. A bar at its mouth has 16 feet water, at high tides. The Conya, a narrow, but deep stream, falls into it a mile from its mouth.

The Corentyn and the Suramaca are large rivers between the Berbice and the Surinam.

The Comewine runs N. about 150 miles, and empties half way between the Surinam and Maroni. A few miles from its mouth it receives the Cottica from the E.

Cayenne river is a large stream, which runs in a N. E. direction, and empties by a mouth a league broad.

The Oyapoc rises in the mountains of Parima, and is a larger river than the preceding. It empties just W. of cape Orange.

The Arowary, or Aracuari, is the southern boundary.

Mountains.] The *mountains of Parima* are described under the article America. The principal chain in the eastern part of Spanish Guiana passes N. and E. of lake Parima, between it and the Essequibo. From the head of that river its course is eastward, sometimes in Cayenne, and sometimes in Portuguese Guiana. A spur

from the principal chain crosses the Essequibo at the cataracts, and tending E. N. E. is broken by the Surinam, not more than 100 miles from its mouth. Eastward of that river it approaches within 20 miles of the sea, terminating not far from the Maroni. There are various spurs from the principal chain in Cayenne, but we have seen no particular account of them.

Botany.] The botany of Guiana has been admirably illustrated by Brancoft. The *cabbage tree* is 120 feet high, and 7 in circumference. The cabbage grows on the top of the trunk, and has the taste of an almond. It is broiled, or eaten as sallad.

The *silk cotton tree* is 100 feet high, and 12 in circumference, and is free from branches about 70 feet. It yields triennial crops of silky cotton, and is the favorite tree for the Indian canoes. The *bullet tree* is 50 feet high, and 7 in circumference. Its wood is among the heaviest and most durable that are known. The *iron wood* is of the same size, and is used by the Indians for their heavy clubs with sharp edges. The six last grow in the interior, on a dry elevated soil, and are transported at a great expense, to the West-Indies for windmills.

The *launa* is 50 feet high, and bears white flowers, and a green oval fruit of the size of a lemon; the juice of which, after a little exposure to the air, changes from a whitish color to a beautiful deep bluish purple. With this the Indians paint their skins; and the figures for 8 or 9 days, are perfectly indelible, and then disappear. The rogues of the country have devised an ink of it, which, in the same space of time, becomes absolutely invisible. The roots of the *red mangrove* unite, and form the trunk 2 or 3 yards above the ground. The tree is lofty, and grows near running streams. From the trunk and branches numerous ligneous shoots germinate, and descending take root, and increase in size, strength and solidity, forming a circular, natural arbor around the body of the tree.

The *bourracourra* or *letter wood*, is the heart of a tree 30 feet high, and 16 inches over. The heart is only 12 inches in circumference, is of great weight, hardness, and solidity, having a fine even grain, of a beautiful deep, reddish color, every where variegated with black spots and figures, which have been tortured into *letters*. Its polish reflects a lustre like that of a mirror, and far superior to any other ligneous substance.

The *hiarree* is a shrub 6 feet high; its root is 8 or 10 feet long, 3 inches round, straight, and continuing of almost equal magnitude to the end; it is of a tough, fibrous texture, and resembles the fresh dug roots of the liquorice. The *Accawaus* cut them in pieces, of two feet in length, and sell them to the whites. One of these pieces bruised, and thrown into a river at high or low water, is sufficient to inebriate all the fish within a considerable distance, so that in a few minutes they float motionless on the top of the water. Almost all the fish eaten in Guiana are taken in this manner.

[Zoology.] The horse, the ass, and the mule run wild in the savannahs, and are numerous. Neither they nor the zebra are natural to Guiana. Horned cattle also have been transplanted, and are very abundant. They improve in size, but are less delicate in taste. The wool of the sheep changes to hair. The goat is a native, is a little larger than a European kid, and very prolific.

The *orang outang* of Guiana is 5 feet high, has short black hair, and is very strong and ferocious. The *ape*, here called *quato*, has a body 4 feet long, covered with long black hair, a bold face, and goes either on four or two feet. The *howling baboon* is of the size of a fox, and has shining black hair. Hundreds of them assemble in the woods, and set up an incessant, loud, and disagreeable howling. The *howling monkey* is larger, has red hair, and a still more hideous yell. The *saccawinkee* is the smallest of the ape tribe, and has a body 6 inches long, and a tail 9 inches. The Guiana *tiger* is nearly of the size of the African, and very daring and ravenous. The *tiger cat* is of a beautiful chesnut, spotted with black, and a third larger than the domestic cat.

The birds of Guiana excel rather in the beauty of their plumage, than in the sweetness of their notes. Their flesh is inferior to that of the same species in colder latitudes.

The fish on the coast are less delicate than those which live in the rivers; this is owing to the muddy water, which extends 30 or 40 miles from the shore all along the coast. The *torporific eel* is 3 feet long, and 1 in circumference, and has a smooth skin, of a bluish, lead color. It comes to the top of the water to respire every 4 or 5 minutes. When touched by the naked hand, or by a metallic rod, or a stick of some of the heavy species of wood, it communicates a most powerful electric shock.

The immense number and variety of the snakes of Guiana constitute one of the principal inconveniences of the country. The largest ever caught here was 33 feet some inches long, and 3 feet round. The name of the species is not mentioned by Bancroft, but its bite is not venomous. The *commodee* is amphibious, 15 feet long, and $1\frac{1}{2}$ round. The *scarlet snake* is 5 feet long, and as large as a man's thumb, amphibious, and extremely venomous. The *fire snake* is 4 feet long, and as large as a man's finger. Its bite is fatal. The *carunna* is $2\frac{1}{2}$ feet long and slender. In the rainy season they come into houses, and are often found under tables and chairs and in beds. Their bite is said to be fatal.

The multitude and variety of insects is incredible. Among these are numerous beetles; the cockroach; butterflies, without number; the bee; numerous ants; the flying ant; wood lice; 2 sorts of fire flies; numerous varieties of the gnat, musquito, caterpillar, and spider; the palmer worm; Surinam scorpion; centipes; and the chigger, the *nigua* of New-Granada.

VICEROYALTY OF PERU.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT, BOUNDARIES, DIVISIONS, HISTORY, ANTIQUITIES, RELIGION, GOVERNMENT, POPULATION, MANNERS AND CUSTOMS, CITIES AND TOWNS, REVENUE, MANUFACTURES AND COMMERCE.

Extent.] PERU extends on the coast, from the Tumbez, in lat. 3 25 S. to port de Loa, in lat. 21 30 S. In the interior its treaty limit is the celebrated line of demarkation already described under the divisions of S. America, although the Spaniards have no settlements, except *missions*, beyond the eastern cordillera of the Andes. Its length, from N. to S. is 1260 miles. The eastern cordillera is from 240 to 300 miles from the western coast. In the interior the Amazon may be considered as its northern limit; while, in the S. the district of Lampa, the most northern in the viceroyalty of Buenos Ayres, lies N. of lake Titicaca, and commences only 30 geographical leagues S. of Cusco.

Boundaries.] On the N. lies the viceroyalty of New-Granada, from which it is separated by the bay of Tumbez and the river Amazon; on the E. it is bounded by an immense desert; on the S. E. the Cordillera of Vilacota separates it from the late viceroyalty of Buenos Ayres; on the S. is the desert of Atacama, which separates it from Chili; and on the W. is the Pacific ocean.

Divisions.] Peru was formerly divided into 5 dioceses, or circuits, which were subdivided into numerous jurisdictions. The following table commences on the N. W.

- | | |
|---------------------------|--------------------------|
| I. <i>Truxillo.</i> | 14. Tarma |
| 1. Piura | 15. Guanuco |
| 2. Sana | 16. Canta |
| 3. Truxillo | 17. Lima |
| 4. Chacapoyas | 18. Guarachia |
| 5. Caxamarcas | 19. Jouxá |
| 6. Llulla and Chiloas | 20. Canete |
| 7. Caxamarquilla or Patáz | 21. Yauyos |
| II. <i>Lima.</i> | 22. Ica, Pisco and Nasca |
| 8. Santa | III. <i>Guamanga.</i> |
| 9. Guamalies | 23. Guanca Velica |
| 10. Chancay | 24. Angaraes |
| 11. Guaylas | 25. Guanta |
| 12. Caxatambo | 26. Guamanga |
| 13. Conchucos | 27. Castro Vireyna |

- 28. Andaguaylas
- 29. Vileas Guaman
- 30. Parima Cocha
- 31. Lucanas

IV. *Cusco.*

- 32. Avancay
- 33. Colcaylares
- 34. Cosco
- 35. Paucartambo
- 36. Quispichanchi
- 37. Chitques and Masques
- 38. Cotabamba

- 39. Canas and Canches or Tinta
- 40. Aymaraes
- 41. Chumbi Vilcas
- 42. Apolo-bamba

V. *Arequipa.*

- 43. Condesuyos de Arequipa
- 44. Camana
- 45. Arequipa
- 46. Caylloma
- 47. Arica
- 48. Monquegua

Since that period the whole country has been divided into the following 8 intendencies, arranged in the same manner :

Truxillo
Tarma
Lima
Guanca Velica

Guamanga
Guantajaya
Cusco
Arequipa.

History.] Little is known of the history of Peru before the dynasty of the Incas. In this the native historians enumerated 15 reigns, previous to the conquest by Pizarro. The Incas and their nobles are thought to have been a distinct race from the body of the nation. The following is a list of the Incas furnished by the Spanish historians : 1. *Manco*, the founder of the dynasty. He made Cusco the seat of his empire ; and built there the temple, and established the worship of the sun ; pretending that himself and his sister Oello, whom he had married, were the children of that divinity. 2. *Sinchi-Roca*, son of the former. 3. *Lloque-Upanqui*, a distinguished conqueror. 4. *Maita-Capac*. 5. *Capac-Upanqui*. 6. *Inca-Roca*. 7. *Yahuar-Huacac*. 8. *Ripac*, also a distinguished conqueror. 9. *Urco*, who reigned only 11 days. 10. *Pachacutec*. 11. *Yupanqui*, who carried his arms to the Maule, in Chili. 12. *Tupac-Yupanqui*. 13. *Huayna-Capac*, who subdued the kingdom of Quito. 14. *Insi-Cusi-Hualpa*, who was beheaded by his brother and successor. 15. *Atahualpa*, who was inca when Pizarro invaded Peru. He met the fate of his predecessor. 16. *Manco-Capac*, who reigned by permission of the conqueror, and died in 1533. 17. *Sayri-Tupac*, the last of the incas, who resigned his crown to Philip II.

Pizarro, in 1532, founded a colony at St. Michael, near the mouth of the Piura. At Caxamalca he treacherously siezed the person of Atahualpa, whom he suffered to ransom himself, by an immense quantity of gold, and then put him to death in 1533. He took Cusco the same year. Peru was created a viceroyalty, and a royal audience was established at Lima, in March, 1543. At first the viceroy had the superintendence of New-Granada, including Quito, of Chili, and of Buenos Ayres.

We have no authentic documents to enable us to bring down the history of Peru to the present time.

Antiquities.] The famous statues and obelisk of *Tiahuanaco*, near the confines of La Pas, and the mausolea of *Chabapoyas*, are

honorable proofs of the skill in sculpture possessed by the Peruvians ; as are the ruins of Pachacamac, the edifices of Cusco and Quito, the fortresses of Harbay and Caxahuana, and the roads cut through the Cordilleras, of their skill and acquaintance with civil and military architecture. The mines which they opened in the mountains Escamora, Chilleo, and Abitanis, for gold ; in Choquipina, and Pozco, for silver ; in Curahuara, for copper ; and in Carabuco, for lead ; still attest their knowledge of metallurgy. In Lucanas, Condesuyos, and many other places, are ruins of noble aqueducts, some of which would have been thought works of difficulty in civilized nations. In their sepulchres were deposited their paintings, manufactures, vessels of gold, and silver implements of war, husbandry, and fishing. A few of these remain. Several pillars are now standing, which were erected to point out the equinoxes and solstices.

* *Religion.*] Peru constitutes a single archbishopric. It is divided into 5 dioceses ; that of Lima under the archbishop ; and those of Truxillo, Guamangua, Cusco, and Arequipa under their respective bishops. These dioceses are co-extensive with the same name. Beside the chapters of these dioceses there are 557 curacies in the royal gift.

Government.] The government is vested in a viceroy and a royal audience. The viceroy is appointed for three years ; but the king may prolong his tenure of office. He enjoys all the privileges of royalty, and is absolute in all affairs, civil, criminal, fiscal, political, and military. He has a body guard of 160 horse and 50 halberdiers, and a guard within the palace of 100. The audience consists of the viceroy, who is president, a regent, 8 oidors (*auditors*) or judges, 4 alcaldes of the court, and 2 fiscals. The audience is always held in the viceroy's palace, in the three saloons appropriated to it. In one it holds deliberations, and the viceroy presides. In a second it sits as a court, and hears civil causes *privately* ; and in a third *publicly* : the senior oidor presiding in both. A criminal court sits in a fourth saloon, consisting of the four alcaldes, and a criminal fiscal. Next to the audience is the chamber of accounts, consisting of a commissioner, 5 chief accountants, 2 receivers, and 2 directors, who regulate the distribution of the revenue. The junta of the treasury consists of the viceroy, the regent of the audience, a treasurer, and other officers.

The revolutionary movements which have so extensively agitated the other parts of Spanish America, have not yet reached Peru. The reason seems to be, that the landed estates are in the hands of large proprietors, and are cultivated by slaves. The masters are fearful, therefore, that any attempt to change the form of government, would be attended by a loss of their property, and might terminate in the same manner as the revolution of St. Domingo. The revolutionists in Chili and Buenos Ayres have for some time past contemplated the liberation of Peru, from the Spanish yoke ; and nothing but the want of vessels for the transportation of their troops has prevented them from carrying their designs into execution. Since the recent brilliant success of the revolutionists in Chili, the accomplishment of this plan looks more probable.

Population.] From a census recently taken, Peru contains 1,079,122 persons of all sexes, conditions, and denominations. Of which number 619,190 are Indians. The number of towns and villages is computed at 1460.*

Manners and Customs.] The inhabitants here, as in the other Spanish colonies, consist of whites, Indians, and negroes; and the various casts arising from the intermixture of these three. The inhabitants are generally hospitable to strangers. They are naturally gay and lively in their tempers, clear and discriminating in their understanding. Many of them, even of the females are well informed. The love of gain and magnificence appears to be the predominating passions. These, however, do not prevent a great licentiousness, which pervades all ranks and classes.

Cities and Towns.] LIMA was founded by Pizarro in 1535. It is situated in the centre of the spacious and delightful valley of *Rimac*, an Indian word out of which the Spaniards have made Lima. The river *Rimac* flows on the N. side of the city, separating it from the suburb of St. Lazarus. This river is fordable, except in the rainy season, when it becomes a torrent. A noble stone bridge is thrown over it, having a beautiful gate at the S. end, opening through the wall of the city. The form of the city is nearly triangular, the base extending along the river. Its length, from E. to W. is 4100 yards, and the greatest breadth 2307. The wall is of brick, and is flanked with 34 bastions, without platform or embrasures. It has 7 gates and 3 posterns, and was designed chiefly as a defence against the Indians. The streets are paved. Along them run streams of water conducted from the river a little above the city. They are broad, and cross each other at right angles, forming squares of 150 yards to a side. The houses are generally low, but commodious and handsome, and are covered with lime, painted in imitation of freestone; the earthquakes rendering more compact materials dangerous. Most of the houses have fruit gardens; and many fruit and kitchen gardens are found in the east and west part of the city. The town is divided into five parishes, and contains 23 monasteries, 14 nunneries, 16 hospitals, 4 colleges, and numerous public schools. In the centre of the great square is a spacious and superb fountain of exquisite architecture. According to the Peruvian Mercury, Lima contained, in 1600, 14,262 inhabitants; in 1614, 25,455; in 1700, 37,259; and in 1790, 52,627. Of this last number 47,796 were secular persons of all descriptions; viz. 17,215 whites; 3912 Indians; 4631 mestizoes; 8960 negroes; 5972 mulattoes; 2383 quarterons; 219 quinterons; 3384 sambos; and 1120 chinos. The number of religious persons was 4831; of whom 2555 were males, and 2276 females. The market of Lima is admirably supplied. Its commerce is very extensive. Callao, its port $2\frac{1}{2}$ leagues W. from Lima, was formerly a town of some size, but at present is merely a road, with a few warehouses.

Cusco was the ancient seat of the monarchy, and was founded by the first inca, Manco Capac. It stands in an uneven situation, and

* Estalla, XX. 250.

has mountains close to it on the N. and W. The ruins of the famous fort, built by the incas, is on the mountain on the N. Most of the houses are of stone, well contrived, and covered with tiles of a lively red color. It contains 9 churches and numerous convents. The cathedral is of stone, and admirably built. The population is estimated at 32,000. The Guatanay, a small river, runs by the town. The site of the city is nearly as large as that of Lima.

AREQUIPA was founded by Pizarro, in 1539. It stands in the valley of Quilca, in the southern part of Peru, about 20 leagues from the sea; and in point of population, is the second city of Peru. The houses as well built of stone, and vaulted, generally lofty, commodious, finely decorated without, and neatly furnished within. The streets are kept very clean, by means of canals which communicate with (*the Chile*) a river in the neighborhood. The population is estimated at 24,000. Aranta is its seaport.

TRUXILLO is in lat. 8 6 3 S. It was built by Pizarro, in 1535 in the valley of Chimo, and is half a league from the sea. The houses are generally of brick, and of a decent appearance, but only of one story. The population is about 6000. Guanchaco, 2 leagues N. is its port.

Revenue.] The chief source of revenue is the coinage at Lima. Estalla supposes that the royal treasury receives more than 4,500,000 dollars annually.

Commerce.] Peru formerly exported to the viceroyalty of Buenos Ayres, brandies, wines, maize, wheat flour, cotton, oil, pimento, woollen manufactures and sugars; and received in return the precious metals, mules, sheep, hides, wax, soap, dried fish, wool, tallow, cacao, &c. This commerce was carried on by land.

The exports to Chili in 1789, consisted of cloth, sugars, salt, and rice, to the amount of \$458,317; and the imports from Chili, consisting of wheat, tallow, copper, hides, cordage, &c. amounted the same year to \$629,800; of this sum 275,000 was for wheat.

The commerce between Peru and Buenos Ayres and Chili has been interrupted for several years by the war between the royalists and the patriots. Peru has greatly suffered from this interruption, particularly for want of the mules which were formerly imported in immense numbers from Buenos Ayres.

The exports to Guatemala consist of furs, wines, brandies, oil; and the imports from that country are indigo, pimento, pitch, cedar planks, brazil wood, &c.

The commerce with Spain was carried on through the ports of the gulf of Mexico, till October, 1778. At that time a free trade was permitted between the ports of Cadiz and Callao. The annual value of the exports from Callao to Cadiz during the 5 years from 1785 to 1789 was \$7,195,880.

Seven eighths of this sum consisted of the precious metals. The annual value of the imports from Cadiz during the same period was \$8,419,862 about one half of which was Spanish produce.

The whole value of the exports from Peru to the other Spanish colonies in 1789 was \$2,649,942 and the whole value of the imports from the same colonies during the same year was \$1,954,570.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE AND SEASONS. FACE OF THE COUNTRY, RIVERS,
BOTANY, ZOOLOGY, MINERALOGY.

Climate and Seasons.] THE climate of the various places in Peru depends much on their situation. The highest Andes are perpetually covered with snow ; and experience an uninterrupted winter between the tropics. The lower mountains have usually the same covering in the cold season ; while the hills enjoy a never failing spring. The elevated plain between the two cordilleras, called by Humboldt the high table land of Peru, has scarcely any variation of temperature throughout the year ; the mercury of Fahrenheit always standing at about 65° or 66°. The country is here perpetually verdant, and the grains, the vegetables, and the fine fruits of Europe, find here a genial climate, amidst those of the torrid zone. The only distinction of seasons arises from the rains which prevail from November to May. In the country of *Valles*, or the plain between the western cordillera and the Pacific, the climate is materially different. The chief division of seasons is here into winter and summer. The winter begins with July and lasts till the end of November. It is seriously colder than the rest of the year. The month preceding it is commonly called autumn, and the month following spring ; denoting merely the short period in which the two principal seasons are partially blended ; before the one loses, and the other gains, its acknowledged characteristics. Rain is never known in any part of this region throughout the year ; but, in the winter, the earth is covered with so thick a fog as totally to intercept the rays of the sun. In some places the fog is so far dispersed between noon and evening, that the sun may be seen, and his warmth felt for several hours ; but others are constantly darkened. In that season of the day, however, the vapor every where dissolves into a very small mist or dew, called *garua*, and moistens the earth equably ; rendering the most arid and barren grounds fertile, covering the fields with flowers of the most beautiful colors, clothing them with the richest verdure. It never falls in sufficient quantities to injure the roads or incommode the traveller, but lays the dust in the streets of the cities and towns, which throughout this region are universally sandy. The only winds prevailing here are the S., S. S. E. and S. E. The S. S. E. is the most common, particularly in winter. At that season these winds begin to blow stronger, and bring the cold with them from the more wintry regions of the S. They are so keen, that light dresses are laid by, and cloth or rather warm stuffs worn. The constant absence of the rays of the sun likewise contributes to this effect. During summer the sun's rays occasion a prodigious heat throughout all this region ; the more so as they are received upon a sandy soil, whence they are strongly reverberated. Thunder and

lightning are here absolutely unknown, though common on the mountains at the eastern limit of this region.

The country of Valles is far from being healthy. Malignant, intermittent and catarrhal fevers, pleurisies, and constipations are the most common diseases, and rage constantly at Lima. The small-pox, though not annual, has heretofore been frequent in its visitations; and has always swept off great numbers of the inhabitants. Convulsions are likewise very common, and no less fatal in all this district. Hectic fevers prevail greatly, and are here contagious. The prevalence of syphilis has been mentioned. It is slower and less malignant in its effects here than in colder latitudes.

[*Face of the Country.*] A hint has been given of this in the preceding article. The country of Valles is a narrow plain, of from 35 to 70 miles in width; extending from the coast to the western cordillera. Between the river Tumbez and Lima, this plain is chiefly a barren, sandy desert, in which, however, the fertilizing influence of the *garuas* calls forth in many places a thrifty vegetation, which continues through December, and the early part of summer, but is soon parched by the drought. Immediately E. of this, is the lower or western chain of the Andes, reaching the whole length of Peru; not in one unbroken elevation, like the cordillera of Mexico, but composed of successive summits of immense height, between which the eastern inhabitants find a laborious passage to the country of Valles. East of the western cordillera lies a high valley, or elevated table land, generally from 8000 to 10,000 feet above the level of the ocean. The width of this valley varies materially in different places; Ulloa says, however, that it is often from 105 to 175 miles. The eastern cordillera is the chine of the continent. It consists also of separate summits, but less broken than the western, and has an average height of 15,000 feet.

[*Rivers.*] Three of the sources of the Amazon rise in Peru, the Tunguragua, the Guallaga, and the Apurimac.

The Tunguragua is the river already described under the article *America*, as the genuine source of the Amazon. Our account of it there is taken from Ulloa. In the Peruvian Mercury, of 1791, copied into Skinner's account of Peru, we find that it rises not in lat. 11°, but in 10 14 S. from the lake of Lauricocha, in the plains of Bombon, a lake, a league in length and half a league in breadth. As it issues from the lake it is 25 yards wide, and of a proportionate depth. Its progress is correctly described under the article before referred to.

The Guallaga, or Huallaga, issues from lake Chiquiacaba, under the name of Guanuco, in lat. 10 57 S. At first it flows precipitately to the N. as far as lat. 10 3 S.; where it turns eastward, and, passing a little to the S. of Leon de Guanuco, preserves the same direction to the town of Muna, at the entrance of the mountainous country in lat. 9 55 S. Here it bends impetuously to the N. between two high and rugged mountains, flows over several dreadful

precipices, and in lat. 9 23 S. receives from the W. the Monzon. The River of the Moon joins it from the E. in lat. 8 40 S. whence continuing its northern course, it takes a new bend, at the town of Valle, in lat. 7 50; below which it forms two difficult passes, named Sahuloyaco and Cachahuanuca. The Huayabamba flows into it from the W. in lat. 7 33 S. half a mile broad; below which it takes the name of Guallaga, and in lat. 7 10 S. receives on the same side, the Moyobamba of equal size. Some distance below, it leaves the mountainous country, receives the Chipurana, from the E. and thence flows, with a gentler current, through the plains of Los Manas. Just before its junction with the Tunguragua, in lat. 5 4 S. it divides into two branches. Its width here is 180 fathoms, and its depth 28 fathoms. The united stream is for some distance half a league broad, and, for about a league, its course is a diagonal of the directions of both, till at length, that of the Tunguragua predominates.

An account of the Apurimac is given under the article *Amazonia*.

Botany.] The celebrated quinquina, which yields the Peruvian bark, abounds in the northern provinces. The plants and trees are many of them like those of New-Granada.

Zoology.] The *llama* and the *vicuna* are the most important of the Peruvian animals. No venomous serpents are found in the country of Valles.

Mineralogy.] The following enumeration of the mines of Peru is given by Skinner, as extracted from the Peruvian Mercury of 1791:

Intendency.	Wrought.					Abandoned.	
	Gold.	Silver.	Mercury.	Copper.	Lead.	Gold.	Silver.
Truxillo	2	134	0	0	0	1	161
Lima	4	131	1	4	0	0	70
Tarma	0	227	0	0	2	0	21
Guanca Velica	1	80	2	0	10	2	215
Guamanga	60	102	1	0	0	3	63
Guantajaya	1	20	0	0	0	19	30
Cusco	0	19	0	0	0	0	0
Arequipa	1	71	0	0	0	4	28
	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>	<hr/>
	69	784	4	4	12	29	598

The number of unserviceable silver mines is owing to the fact that many of them, after being opened, have been completely choked by the water, which flows in from the neighboring highlands. During a space of 10 years, from January, 1780, to Dec. 1789, the above mines yielded 35,359 marks of gold,* 22 carats; and

* The mark of gold being estimated at 125 dollars, and the mark of silver at 8, the total amount of the produce of the mines in the above 10 years will be 34,437,979 dollars.

3,739,763 marks of silver. In 1790 the silver mines yielded 412,117 marks of silver; being an excess of 38,147 marks over the average produce for the preceding 10 years. The product of the Mexican mines appears to be much greater than that of the Peruvian; for, in 1790, that of the gold mines amounted to 5024 marks of gold, and that of the silver to 2,179,455 marks of silver, coined in the royal mint at Mexico: total value of both \$18,063,640.

AMAZONIA.

**EXTENT, POPULATION, CLIMATE, SOIL AND PRODUCTIONS,
RIVERS, BOTANY, ZOOLOGY.**

THIS name has been given to a great and indefinite extent of country possessed by numerous independent tribes in the heart of S. America. The line of demarkation, between the Portuguese and Spanish possessions, passes through the heart of the territory, and divides the whole of it between those two nations; Portugal claiming all that lies E. of that line, and Spain all that lies W. of it. According to the treaty of St. Ildefonso therefore, there is no independent territory. But a great number of powerful and warlike tribes of Indians were, at the time, of a different opinion: and, as they were not consulted at the formation of the treaty, there is no immediate prospect that they will recognize its validity.

Extent.] It is impossible to assign any exact limits to this territory. On the S. it may, however, be considered as extending to the confines of Paraguay, in about lat. 14° S.; on the W. to the river Ucayale; on the N. to the Amazon; and on the E. to the Tocantin. This country is estimated, vaguely however, at 1400 miles long, by 900 broad.

Population.] The Portuguese have some small settlements on the coast between cape North, and the mouth of the Amazon; these excepted, the natives have the sole possession of the country. The natives are of good stature, with agreeable features, long black hair, and copper colored complexions, have a taste for sculpture and painting, and excel in the mechanic arts. They weave and spin cotton cloth. Their houses are of wood and clay, thatched with reeds.

Climate.] Though under the torrid zone, the air is temperate, owing partly to the great rains, which occasion the overflowing of the rivers, and the inundation of the country for half the year, and partly to the cloudiness of the weather.

Soil and Productions.] The soil is fertile, and produces corn and grain, and all kinds of tropical fruits.

Rivers.] The Amazon, the northern boundary, has heretofore been described, as issuing from lake Lauricocha. The river, which issues from that lake, is the most western branch. A dispute has

long existed whether that or the Ucayale, was the true source. In the appendix to Skinner's account of Peru, are numerous geographical descriptions of the interior of S. America, extracted from the Peruvian Mercury. As these descriptions are founded on the travels of fathers Sobreviela and Girval, men of high distinction in Peru, they may doubtless be relied on. From them we are led to believe that the river issuing from lake Lauricocha, and called the *Tunguragua*, is only a tributary, and not the genuine source of the Amazon.

The *Yucayale* is said, by the editors of the Peruvian Mercury, to have its source under the name of the *Apurimac*, in the wild heaths of Condoroma, in the province of Tinta, in Peru, and in 16° S. latitude. It flows impetuously eastward about 3 leagues, toward the cordillera of Vilcanota, then suddenly turning to the W. separates that cordillera from the province of Chumbivilcas, entering the provinces of Aimaraes and Cotabambas, it directs its rapid course to the N. W. leaving the province of Cusco to the E. and in Avancay declines to the N. E. and ceases to be fordable. Determining its career to the N. two leagues below the bridge of Apurimac, it breaks through the eastern cordillera, passing between mountains of vast elevation. In lat. 13 10 it receives the *Cocharcas*, or *Pampias*, from the heights of Guanica-Velica, on the W. : in 12 15 the *Vilcomayo* from the E. ; and in lat. 12 6 the *Jauja*, or Indian *Muntaro*, from the W. Here it bends to the N. E. ; and, in lat. 11 18 the *Perene* joins it from the same side. In lat. 10 45 it receives the *Paucartambo* from the S. E. and three leagues below, the *Beni*, which rushes with such impetuosity, as to propel the Apurimac towards the mountains, and cause it to change its direction to the N. W. Here the united stream takes the name of the *Apo Paro*, or *Grand-Paro*, and continuing its impetuous course in the same direction, in lat. 8 26 is augmented by the *Pachitea* from the S. W. after which, it is called the *Ucayale*. It then turns to the N. E. and continues that direction to its confluence with the *Tunguragua*. In this distance it receives the *Aguatia*, in lat. 7 55 ; the *Manoa*, or *Cuxhiabatay* in lat. 7 ; the *Sarayacu* in lat. 6 45 ; and the *Tapichiy Cano Pocati*, in lat. 5°. Below this it divides into three branches, and at length, forming an extensive bay, unites with the *Tunguragua*, in lat. 4 45 S. Of these two rivers the *Ucayale* is the longest, the largest, and the farthest navigable. It was never doubted to be the genuine source of the Amazon, say the editors of the Mercury, till 1707 ; when the map of father Fritz, published at Quito, first gave the name of *Maranon*, or *Amazon*, to the *Tunguragua*.

It may not be improper here to remark that the Portuguese give the whole river the name of *Maranon*, as far as its confluence with the *Madeira*, and thence the name of *Amazon*, to its mouth. Of the two names applied to the river generally, *Ulloa* speaks of that of *Maranon*, as the most ancient, and of that of *Amazon*, as having long been the most common. An attempt is now making to revive the former name.

The *Vilcomayo* originates in the heights of Vilcanota, in lat. 15 25 S. ; watering with a copious stream the valley of Urubamba, it flows into the Apurimac, in lat. 12 15.

The *Jauja*, *Jauxa*, or *Mantaro*, issues from lake Chinchaycocha, in the plains of Bombon, a lake 9 leagues long, and 2½ broad, in lat. 11 3 S. Running S. a great distance, it crosses the valley of Jauxa, and winding to the E. is increased by a large stream from the heights of Guanica-Velica. The cordillera for a while turns it to the N. and it thus forms the long peninsula named *Tallacaxa*. It then resumes its eastern direction, and continues it to the Apurimac.

The *Perene*, a smaller stream, originates within two leagues of Tarma, and dividing that city, is afterwards greatly enlarged before it is lost in the Apurimac.

The *Paucartambo* issues from the cordillera of Vilcanota, in the same parallel with the Apurimac ; into the eastern side of which it flows, in lat. 10 45 S. It is said to contain a greater quantity of water by one half than the Apurimac.

The river *Beni* rises in the mountains to the E. of the jurisdiction of Ciatica, in about lat. 19° S. It runs from S. to N. with some inflexions, receiving various rivers from the mountains. The largest of these is the *Coroyco*, from the province of La Pas, on the W. In lat. 13° S. it throws off a branch in an eastern direction, which enters a large lake, named *lake Roguaguado*, having an extension of more than 10 leagues from E. to W. and of 5 from N. to S. From the eastern end of this lake issues an arm, which runs to the Mamore ; and from the northern side, 3 rivers, the *Yutay*, the *Tefe*, and the *Coari* run northwardly to the Amazon. The Beni, after losing this branch, pursues a N. W. course, and joins the Apurimac, in lat. 10 38 S. With regard to the Beni, we do not see why it is not to be considered as the genuine source of the Amazon, instead of the Apurimac. If the preceding accounts of both, taken from the Peruvian Mercury, are true, it is several hundred miles the longer of the two, and its force is so much the greater at the confluence, that the united stream is compelled to take its direction to the N. W. instead of the N. E. course of the Apurimac.

The *Pachitea* originates in lat. 10 46 S. near fort Quiparacra. It runs to the E. and afterwards to the N. forming the *Pozuzo* ; and then recovering its former direction preserves it till its confluence with the *Mayro*. Again turning northward it receives the *Piechis*, and falls into the *Grand Paro*, in lat. 8 26 S.

The rivers *Mamore* and *Magdalena* form the *Madeira*. The *Mamore* rises in the district of Misque, in Paraguay, in about lat. 20° S. and receives the *Piray* and the *Guapay* before the confluence. Santa Cruz de la Sierra is on one of its branches. The *Magdalena* rises in Chaco, in Paraguay, nearly in the same latitude, and runs E. of the *Mamore*. It receives, on its right bank, the *Itenas*, or *Ytenas*, a very large river, which is a part of the boundary between the Spanish and Portuguese possessions. The *Mamore* and *Magdalena* both run in a northwesterly course, and unite in about lat. 11 S. The course of the *Madeira*, after the confluence is N. E.

The *Totayoa* and the *Zingu* are both large tributaries of the Amazon on the same side, below the Madeira.

Botany] Cedar, Brazil wood, oak, ebony, ironwood, logwood, and other dying woods abound in this country; also, cocoa, tobacco, sugar canes, cotton, cassava root, potatoes, pine apples, guavas, yams, sarsaparilla, gums, raisins, balsams of various sorts, bananas, &c.

Zoology] The forests abound with tigers, wild boars, buffaloes, deer, parrots, and game of various kinds. Wild honey is plenty. The lakes and rivers have abundance of fish, sea cows, and turtles.

BRAZIL, INCLUDING PORTUGUESE GUIANA.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT, BOUNDARIES, DIVISIONS, NAME, HISTORY, POPULATION.
RELIGION, GOVERNMENT, ARMY, REVENUE, MANNERS, EDUCATION,
CITIES, ROADS, COMMERCE.

Extent.] THE Portuguese possessions in South-America extend from the mouth of the Arowary, or Aracuari, in lat. 1° 30' N. along the eastern coast, as far as lat. 33° 3' S. about 60 miles beyond the mouth of Rio Grande; the tract of land between this parallel and the mouth of the little river Chuy being neutral territory, claimed neither by Spain nor Portugal. According to the *line of demarkation*, heretofore recited, the western mouth of the Yupura is the boundary of the Portuguese possessions, on the N. side of the Amazon; while on the S. side of that river they extend nearly two thirds across the continent. We are unable to point out the exact western limit on the S. side of the Amazon; but it must be at least as far as the mouth of the Tefi, which falls into the Amazon, on the S. from lake Rogagado, in lon. 64° W.; for the Portuguese have a town, called Tefi, at this place. This is their most western settlement; but it does not hence follow that it is on the frontier of their territory. The most eastern limit of Brazil is in lon. 34° 30' W. The length of these possessions from the mouth of the Arowary to the southern limit, is 2450 miles. The breadth, in Portuguese Guiana, exceeds 1000 miles. The greatest breadth, from the mouth of the Tefi to cape St. Roque, is more than 2000. That from the coast to the Paraguay, N. of the Mibotety, is about 1200; from the coast to the Parana, N. of the Iguazu, it is 450; and farther S. it terminates nearly in a point. The treaty limits of Brazil thus include more than one third of South-America. Almost all the country, however, W. of the Tocantin is still independent.

Besides the above territory the Portuguese are now in possession of all that part of the late Spanish viceroyalty of Buenos Ayres, which lies east of the Parana and the Rio de la Plata. As their right to this territory, however, is disputed, we do not choose to consider it under the head of Brazil.

Boundaries.] The territory N. of the Amazon is called *Portuguese Guiana*. Including that in our account, the boundaries are as follows; on the N. Spanish Guiana, now a part of Venezuela, French Guiana, and the Atlantic; on the E. and S. E. the Atlantic; on the S. W. and W. Buenos Ayres, Peru, and New-Granada.

Divisions.] The following are the capitania or general divisions arranged in geographical order. Beginning in the N. the capitania of *Para*, lies S. of the Amazon, and along the Tocantins river. It borders upon the sea. Proceeding along the sea coast in a southeasterly direction we pass through the capitania of *Maranham*, *Seara*, and *Pernambuco*. South of Pernambuco is *Bahia* which extends along the coast from the river St. Francisco in lat. 11° south to the river Das Contas in lat. 14° S.

Southwest of Bahia is the capitania of *Minas Geraes*, which extends more than 600 miles from N. to S. and about the same distance from E. to W. It is bounded on the W. by the capitania of *Goyaz*, and on the S. by the river Paraibuna, which divides it from the capitania of *Rio de Janeiro*. On the east is an immense chain of mountains, which separates it from the coast, and the country inhabited by the Anthropophagi Indians.

The capitania of *St. Paul's* bordering on the coast, lies southwest of Rio de Janeiro, and the capitania of *Rio Grande*, the most southern division of Brazil, lies S. of St. Paul's. The capitania of *Matto Grosso*, the only one which remains to be described, is the great western division of Brazil, and is bounded on the E. by *Goyaz*, on the S. E. by *Rio Grande*, and on the W. by Peru and the late viceroyalty of Buenos Ayres.

These divisions do not embrace *Portuguese Guiana* which lies N. of the Amazon, and about which little is known. A very small part of the territory which goes under this name is in the actual possession of the Portuguese.

Name.] This country was called, by its discoverer, *St. Croix*. It derived its present name from the celebrated dyewood found abundantly in its forests, called the *Brazil wood*. This wood is mentioned by Chaucer, under its present name, and was known long before his time. Chaucer flourished a century before the discovery of America. The name was altered from *St. Croix* to *Brazil*, by order of Emmanuel.

History.] Brazil was discovered by Pedro Alvarez Cabral, a Portuguese, in 1500, on a voyage from Lisbon to the East-Indies. He is said to have made his first landing at Porto Seguro. Emmanuel immediately claimed the whole country from the Amazon to the La Plata, and ordered it to be surveyed. As little gold or silver was found near the coast, it was, for a while, wholly neglected; and none but criminals and abandoned women were sent thither. In 1548 the inquisition, after plundering the Jews of their property,

banished them to Brazil. Thomas de Sousa, the first Portuguese governor, was sent over the next year. He immediately built St. Salvador, on the bay of All Saints. This was the first settlement. As the province soon began to flourish, it was attacked by the French, and afterwards by the Spaniards, with little success. The Dutch, however, in 1624, sent a large armament, under Willikins, which reduced St. Salvador. Willikins left here a strong garrison and returned with a great deal of plunder. A Spanish squadron of 56 sail, with 12,000 seamen and marines, sailed the next year for St. Salvador, and took it after a short resistance. Brazil at this time was divided into 14 provinces. The Dutch took Pernambuco in 1630, and the provinces of Temaraca, Paraiba, and Rio Grande, in the 5 following years. Siara, Seregippe, and the greater part of Bahia, fell into their hands soon after, in spite of the vigorous opposition of the Spaniards. Portugal asserting her independence, in 1640, the 7 provinces of Brazil, which were not subdued by the Dutch, joined the mother country in shaking off the Spanish yoke. The Dutch and Portuguese immediately agreed to divide the country, each retaining 7 provinces. This division gave rise to the name of *The Brazils*, instead of Brazil. As the Dutch government soon began to oppress the Portuguese colonists, they took up arms, and in a short time cleared Brazil of the Hollanders. Since that period Portugal has remained in undisturbed possession.

In the latter part of the year 1806, in consequence of the invasion of Portugal by the French, the royal family to escape the impending danger, embarked for Brazil, under protection of an English squadron, which was at that time blockading the mouth of the Tagus. In consequence of the close alliance with Britain, formed by the Portuguese court on its emigration to Brazil, a commercial treaty was concluded between the two countries, by which all the ports of Brazil were opened to the vessels and produce of Britain, on payment of a duty of 15 per cent.

In the beginning of April 1817, an insurrection broke out in Pernambuco, which, it was at first supposed, would extend over the whole country. The insurgents succeeded in overthrowing the government of that province, and in establishing a provisional one in its room; but, the port of Pernambuco being blockaded, and troops arriving from the surrounding provinces, the insurgents were overpowered, and their leader was executed.

Population.] We have no data from which we can determine the population with any accuracy. Mr. Mawe, who travelled through the country in 1809—10, supposes that the civilized population, exclusive of slaves, does not exceed 800,000 souls. The number of blacks, it is supposed, is about the same with that of the whites. No estimate has been made of the number of Indians. Probably the whole population may not vary greatly from 2,000,000.

Religion.] The Catholic religion is established. Since the late removal of the government, all others have been tolerated. The inquisition has been abolished. St. Salvador is the see of the archbishop of Brazil. Bishoprics are established at Rio Janeiro, Pernambuco, and various other places.

Government.] Formerly Brazil was a Portuguese colony, governed by a viceroy. Since 1807, however, the king of Portugal and his court have resided here. Brazil is now a monarchy. The king is absolute, as he was in Portugal previous to his removal. The seat of government is at Rio Janeiro.

Army.] The whole number of troops in the army of Brazil we cannot ascertain. In the capitania of Minas Geraes, the regular military establishment consists of 1400 cavalry. Their business is to guard the diamond district, patrol the roads, search suspicious persons, and go in quest of felons. They never quit the mining country, except when they escort diamonds and treasure to the capital, or are dispatched on any particular service. A considerable number of troops have been raised, within a few years, for the invasion of the late Spanish territory, bordering on Brazil. They are now in possession of all the country east of the Parana and the Rio de la Plata. The cavalry of this army are in high reputation, and their flying artillery is said to be equal to any in Europe.

Revenue.] The following statement comprehends all the principal sources of revenue in Brazil. 1. A duty of one fifth on all the gold obtained in any part of the country. 2. A duty of 15 per cent. on all imports. 3. A tithe in kind, on cattle, poultry, and agricultural product; this is now usually commuted for a fixed stipend. In many parts the tithes are farmed out to the highest bidders; and these again sell them to under farmers. 4. A duty of two pence per lb. upon all commodities indiscriminately, that enter the gold or diamond districts. 5. A small tax upon exports. 6. A considerable sum arises from the tolls paid on passing the various rivers. The whole amount produced from these various sources we cannot ascertain.

Manners.] In some of the towns upon the coast, the inhabitants are accused of a want of hospitality. This is attributed, however to the great influx of strangers, and renegadoes from all nations, who have steeled the hearts of the people against those claims on their good will, which the inhabitants of the interior, less frequently imposed upon, are ever ready to acknowledge and to satisfy. In the article of dress the Brazilians are dirty and careless at home, but when they go abroad, they appear in all their splendor, forming as great a contrast to their domestic attire, as the gaudy butterfly does to the chrysalis from which it springs.

The gold and diamonds with which Brazil abounds have proved a great obstacle to the improvement of the country. All classes have a fatal propensity to engage in searching after these hidden treasures; and so engrossed are their minds with the sanguine prospect of immense and sudden wealth, which they expect from these projects, that they disdain to seek a moderate and certain competence through the slow process of ordinary industry. Mining is the favorite pursuit, and has so much affected the national manners, that a person engaged in mining; is universally considered as of higher rank than an husbandman.

The farm houses are represented by Mr. Mawe to be miserable hovels of only one story; the floor neither paved nor boarded, and

the walls and partitions are formed of wickerwork coarsely plastered over with mud. Fire places are formed in different parts, by three round stones to hold the earthen pots that are used for boiling meat. Green wood is the chief fuel, and as there is no chimney, the place is always filled with smoke, which vents itself through the doors and other apertures. In all the parts of the country which he visited. Mr. Mawe observed the same indolent and slovenly habits to prevail.

In the principal cities, the Portuguese are in general, rather reserved in admitting a foreigner to their family parties; but having once received him they are open and hospitable. The ladies are affable and courteous, and extremely fond of dress. In their mixed assemblies the utmost gaiety prevails, and is seasoned by that finished politeness for which the Portuguese are generally distinguished.

Education.] Education is at a low ebb, and comprehends a very limited course of literature and science. Since the arrival of the court, however, measures have been adopted for effecting a reform in the institutions for public instruction; and the prince regent, has zealously patronised every attempt to diffuse among them a taste for useful knowledge. Under his auspices the college of St. Joaquim has undergone considerable improvements; among others a lectureship on chemistry has been instituted.

Cities.] RIO JANEIRO, or ST. SEBASTIAN stands in lat. $22^{\circ} 54'$ S. and in lon. $42^{\circ} 44'$ W. Its harbor is scarcely to be excelled for capaciousness, security, and convenience. About 4 miles outside of the harbor's mouth, there is 17 or 18 fathoms water. This gradually decreases for 2 miles to 7 or 8 on the bar, and thence it increases to 17 or 18 at the entrance. On the E. at the entrance is the fort of Santa Cruz, supported by a huge mass of granite, with a perpendicular shore. On the W. is a great inclining sugar loaf, 700 feet in height. The island of St. Lucia, on which is fort St. Lucia, lies directly in the harbor's mouth. The channel lies between the two forts, is less than a mile wide, and is well protected. Beyond these forts the harbor immediately expands to a width of three or four miles, with a depth of from 6 to 18 fathoms; and penetrates, in several branches, a considerable distance into the country. Beyond the town it grows much wider, and resembles a large lake, with many islands upon its surface. The town stands upon the west side of the harbor, 4 miles from the entrance, on a projecting tongue of land; beyond which, all the ground is broken into hills, and rocks, with woods, houses, convents and churches on their tops. A convent of Benedictines, and a fort commanding the town, are situated upon the extreme point jutting into the harbor. Opposite this point is Serpent island, containing a dockyard, magazines, and naval stores; between which and the town, there is a narrow channel, deep enough for the largest ships. Around the shores of this island are the usual anchoring places for the shipping that frequent the port. The streets are generally level, straight, and well paved, with the addition of foot paths. Many of them are of sufficient breadth. On the beach opposite the palace, is a spacious quay of granite. In the squares are refreshing fountains supplied by an aqueduct of considerable

length, with excellent water. This aqueduct is carried over vallies by a double row of arches, one placed above the other. The good houses are built chiefly of hewn stone, and are handsome. The churches and convents are numerous, and nobly built; and the religious parade, on holidays is not surpassed even by that of Lisbon. The present population is estimated variously from 100,000 to 150,000. The proportion of whites to the other classes is greater here than elsewhere, on account of the numerous recent immigrations from Portugal. The commerce of the town is in a most flourishing state. Every thing bears the appearance of thrift and prosperity. The climate is said to be unhealthy, and instances of longevity are rare. This is partly imputed to local and temporary causes. That dreadful disease, the *elephantiasis*, is too common. It destroys the sound texture of the integuments of the human frame; swells, and distorts, and discolors wherever it attacks; and enlarges the patient's misshapen limbs, to the bulk of those of the huge animal, from the resemblance to whom, in that particular, its name is derived.

This city is the chief mart of Brazil, and especially of the provinces of Minas Geraes, St. Paul's Goyaz, Cuyaba and Corritiva. The mining districts being most populous, require the greatest proportion of goods, and in return send the most valuable articles of commerce; hence innumerable troops of mules are continually travelling to and from those districts.

No colonial port in the world is so well situated for general commerce at Rio de Janeiro. It enjoys, beyond any other, an equal convenience of intercourse with Europe, America, Africa, the East-Indies and the South Sea islands; and seems formed by Providence as a grand link to connect the trade of those portions of the globe. Commanding also, as the capital of a rich and extensive territory, resources of immense amount and value, it seemed to require only the presence of an efficient government to give it great commercial importance: and this advantage it has now gained by becoming the chosen residence of the court of Portugal.

ST. SALVADOR, BAHIA TODOS LOS SANTOS, (Bay of All Saints) or, as it is most commonly called, *Bahia*, is in lat. 12 45 S. and lon. 39 31 W. The bay of All Saints puts up from S. to N. about 40 miles, and is 8 miles broad at the mouth. The town is built on the eastern shore of the bay, commencing about 1 mile from the point at the entrance. It extends upwards of three miles along the coast; and near the centre, more than a mile into the interior, gradually narrowing, however, towards each extremity. There is good anchorage close to the shore, and vessels may lie there safe from every wind. A single street runs along the shore the whole length of the town. Immediately back of this the country rises suddenly to the height of 400 feet. A few of the houses are on the side hill, the rest are on the top. The view of the town from the bay, or of the bay and surrounding country from the houses on the hill, are rarely surpassed. The descent is steep and laborious. Heavy bundles are conveyed up and down by cranes, and other machinery. The streets are broad, and well paved, and cross each other at right angles.

The houses are almost universally of stone, strongly built, and handsome. The churches and convents are numerous, and many of them elegant. The population is estimated variously, from 70,000 to 120,000, and is composed of whites, mestizoes, Indians, mulattoes, and negroes. The commerce of the town is very extensive, and is daily becoming more so. Though hotter than Rio de Janeiro, St. Salvador is considered much more healthful, having a more airy situation. This city was formerly the seat of the colonial government. Upon the arrival of the royal family from Portugal, the citizens voted unanimously to contribute half a million sterling to build a palace for the royal family, if the prince would condescend to reside among them.

PERNAMBUCO is 450 miles N. E. of St. Salvador, and has a small inconvenient harbor. Though situated in the latitude of eight degrees, it is considered healthy, being built on a rising ground, and constantly refreshed by the sea breeze. It is supposed to contain more opulent merchants, in proportion to the population, than any other place in Brazil. The chief articles of its trade is cotton which for many years had the reputation of being superior to any other. Population, about 40,000.

ST. LOUIS the capital of Maranhão is built upon an island, and is esteemed healthy. The island is said to contain 20,000 inhabitants. Cotton is the chief article of exportation from this port, with some sugar and rice.

PARÁ, in the capitania of the same name, is situated on the river Tocantins, the navigation of which is difficult, and is seldom attempted, except by small craft. The town may contain ten thousand inhabitants, who are generally very poor. The commerce of the place is very limited. It stands in lat. $1^{\circ} 30' S.$ more than 900 miles W. N. W. of cape St. Roque.

CUIABÁ is in the western part of Brazil, on the river of the same name, 96 leagues from its confluence with the Paraguay. The town and its dependencies are supposed to contain 30,000 inhabitants. The country around is well adapted for cultivation, and has rich gold mines.

SANTOS situated on the coast southwest of Rio Janeiro, is a place of considerable trade being the storehouse of the great capitania of St. Paul's, and the resort of many vessels trading to the Rio de la Plata. It is tolerably well built, and contains about 6000 or 7000 inhabitants. The situation is by no means healthy, as the country around it is low, woody, and frequently deluged with rain. The harbor has a safe entrance and is very secure.

ST. CATHERINE'S on the island of the same name, is south of Santos. It is a neat, well built town, containing about five or six thousand inhabitants. The trade of the place is inconsiderable. It affords an agreeable retirement to merchants who have discontinued business, and other persons who, having secured an independence, seek only leisure to enjoy it.

ST. PAUL'S, the capital of the capitania of the same name, is an interior town about 40 miles from Santos on the coast. It was founded by the Jesuits, who were probably tempted by the gold mines in the vicinity. The situation is elevated, and the air as salubrious as

in any part of South-America. The population of the place amounts to full fifteen thousand souls: the clergy, including all ranks of religious orders, may be reckoned at 500. The country around the town is very fertile. About a century ago this tract abounded with gold; and it was not till after it was exhausted that the inhabitants thought of employing themselves in husbandry. The gardens in the vicinity of the town are laid out with great taste, and many of them with curious elegance.

VILLA RICA, the rich village, is the capital of the province of Minas Geraes. It is in the interior, lying north of Rio Janeiro. The gold mines in the vicinity were, for many years, esteemed the richest on the globe. Between the years 1730 and 1750 they were in the height of their prosperity; the king's fifth, during some years of that period, is said to have amounted to at least a million sterling annually. These mines are now much less productive; and the town in consequence has begun to decline; many of the houses are untenanted. The inhabitants are represented as extremely indolent and perpetually indulging in visionary prospects of sudden wealth. Contemplating the immense fortunes accumulated by their ancestors, from the mines, they have become averse to sober industry. The town is situated on the side of a large mountain. Most of the streets range, in steps, as it were from the base to the summit. In the streets are many fountains. The climate is delightful. The range of the thermometer is from 48° to 80°. The population is about 20,000. The whites are the most numerous.

TEJUCO, the capital of the diamond district, lies N. of Villa Rica, near the sources of the Jigitonhonha, a branch of the Rio Grande. The number of inhabitants is about 6000. The district is sterile; and the inhabitants are dependent, for a supply of provisions, on farms situated several leagues distant. The average quantity of diamonds obtained in this district may be estimated at from 20,000 to 25,000 carats annually, which are sent under a military escort to Rio Janeiro, and there lodged in the treasury. What is termed the Diamond ground, extends about 16 leagues from N. to S. and about 8 from E. to W. This territory is under military government. Guards are stationed on all the roads to examine travellers, and detain persons suspected of smuggling diamonds. No person is allowed to enter the Diamond district without the permission of the governor. The person who is detected in smuggling, is punished with the confiscation of his whole property, and exile to Africa, or confinement, sometimes for life, in prison.

RIO GRANDE or ST. PEDRO, in the southern extremity of Brazil, in about lat. 32° S. is a new, but very flourishing commercial town. The port is dangerous to enter, the water being shoal, and a violent sea always running. There is notwithstanding, a great trade carried on from this place to all the ports of Brazil, in brigs and small vessels that do not draw above 10 feet water. The vicinity of Rio Grande is very populous; in a circuit of 20 leagues, the inhabitants are estimated at 100,000. Their principal occupation is the breeding of cattle. The quantity of hides exported

from hence is almost incredible. Tallow, horns, and horse hair are also considerable articles of commerce. Wheat also is shipped from this port to all the ports on the coast where bread is used.

Roads.] The roads in the interior are frequently bad; although there are some which have been made at great expense, and which are tolerably good. The road from the coast to St. Paul's, which passes over lofty mountains, is carried through deep and impenetrable forests, and frequently a path is cut through the solid rock. Mr. Mawe who travelled this route, speaks in the highest terms of the enterprising spirit of those who accomplished an undertaking so full of difficulties. He thinks that few public works, even in Europe, are superior to it. The usual mode of travelling is by mules, who are employed also in the transportation of the produce of the country.

Commerce.] The trade between Portugal and Brazil was subjected by the government at home to all the usual restraints imposed by the colonial system of Europe. The intercourse was carried on for a long time by means of periodical fleets which were limited to the ports of Lisbon and Oporto in the mother country, and to that of Pernambuco, St. Salvador, Paraiha, and Rio Janeiro, in the colonies. To this succeeded the system of exclusive companies. The effect of this system of restraint was undoubtedly to retard the advancement of the colony. Since the emigration of the Portuguese court to Brazil, a commercial treaty has been concluded with Great-Britain, by which all the ports of the country are opened to the vessels and produce of Great-Britain, on payment of a duty of 15 per cent. The old restraints on its commerce being thus done away, there will be a greater stimulus to improvement of every sort. British manufactures of every description are now imported to a great extent, particularly iron, steel, salt, woollen and cotton goods. The mother country still continues to send oil, wine, brandy, linens, cottons, some silks, &c. India goods are sent from the Malabar coast, and China goods are in great plenty. From the United States are imported flour, salt provisions, turpentine, tar, staves, household furniture, &c. The principal exports are hides, tallow, horns, hair, fur-skins, and feathers; sugar, cotton, coffee, tobacco, and Brazil-wood. The number of hides annually exported from Rio Grande is estimated at 300,000. There are a variety of monopolies which are exceedingly injurious to commerce. The sale of diamonds, ivory, Brazil-wood, gunpowder, tobacco and snuff is monopolized by the government.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE, FACE OF THE COUNTRY, AGRICULTURE, PRODUCTIONS, RIVERS, ZOOLOGY, MINERALOGY.

Climate.] In the neighborhood of the Amazons, and in the northern regions generally, great heats prevail; but these are tempered by the humidity of the climate, and by the copious dews which fall to refresh the thirsty soil. In the southern parts of Brazil the climate is mild and temperate, and frequently cold; Fahrenheit's thermometer falling sometimes below 40°. Brazil is, generally, considered healthy; but the west wind passing over vast forests and marshy grounds, becomes sometimes unhealthy in the interior. The rainy season commences in March, and continues till August; during the rest of the year continued drought prevails. The northern provinces frequently suffer from the want of rain; vegetation languishes, and all verdure fades away under the influence of unintermitted and parching heats. Those parts, on the other hand, which have the advantage of being sheltered and moist, present the appearance of perpetual spring; and whenever the earth is refreshed by the periodical rains, it is clothed with the most luxuriant verdure.

Face of the Country.] Many of the small streams which empty into the branches of the Rio de la Plata, take their rise within a few miles of the seacoast of Brazil. This circumstance will explain the form of the southern part of the country. A ridge of mountains runs along the coast with the steepest side towards the sea, and shelving more gradually and with more frequent outlets towards the interior. Viewed from the sea, the country appears rugged and mountainous; but on a nearer approach its appearance is highly romantic and picturesque, clothed as it is with the most luxuriant vegetation, its hills covered with thick woods, and its vallies with a verdure that never fades. The interior of Brazil, with the exception of those barren and sandy plains known under the name of Campos Parexis, which occur in the central parts of the country, forms a vast and impenetrable forest, the trees of which are closely interwoven with brush-wood, and with innumerable shrubs and creeping plants.

Agriculture.] The land in Brazil almost every where yields an abundant produce. Maize, beans and cassava root, which is generally used as bread by all ranks, are very generally cultivated; also wheat and other European grain; and where the farmer has a sufficient supply of provisions, and has the means, he raises coffee, and prepares for cultivating and manufacturing sugar. The labor

of cultivation is performed by means of negroes. In no branch of husbandry are the farmers so defective as in the management of cattle. In many parts of the country no inclosures are made, nor is any fodder laid up against the season of scarcity. The cows seem rather to be considered as an incumbrance than as a valuable part of the farm stock. Their dairies are under the worst possible management. In so slovenly manner, are all the operations of this department conducted, that the butter becomes rancid in a few days, and the cheese is good for nothing. There is no convenience for storing any part of their produce; and for want of this they are obliged to lay it in promiscuous heaps, so that it is not uncommon to see coffee, cotton, maize and beans, all thrown into the corner of a damp shed, and covered with a green hide. This valuable produce is in consequence either entirely spoiled, or greatly injured, by mould and putridity.

Productions.] The forests of Brazil abound in the greatest varieties of useful and beautiful wood, well adapted for dyeing, for cabinet work, or for ship building. Many of them, such as the cedar, the wild cinnamon tree, the jaracanda or rose wood, grow more beautiful after they are worked, and are extremely durable. The most precious produce of Brazil is the gold and diamonds, which are found in abundance, especially in the capitania of Minas Geraes. In Bahia, large quantities of sugar are raised; also tobacco, cotton and coffee. Cotton is the staple production of Pernambuco and Maranhão. In Goyaz are many gold mines and some diamonds. This extensive district, however, has been very little explored. It is supposed that it may prove as rich in precious minerals as the neighboring province of Minas Geraes. Rio Grande may be considered as the granary of Brazil. Wheat is shipped from this place to all parts of the coast. Like the neighboring Spanish territory, it abounds in cattle, from which hides, tallow and beef are obtained in immense quantities. The beef is prepared in the following manner. After the ox is skinned, the flesh is stripped from the bones in as large flakes as possible, in some degree resembling sides of bacon: it is put into hot brine, where it remains from 12 to 40 hours, according to the thickness. It is then taken out, drained, and dried in the sun, afterwards made up into packages that weigh about 150 lbs. and shipped to all parts of Brazil. It is a common article of consumption among the negroes and lower classes, and is the general food of sailors. It has found its way to the West-Indies, where it is in great request.

Rivers.] The *Amazon* and the *Madeira* have already been described. Almost all the great rivers of Brazil are branches of the *Amazon* or the *La Plata*. There are very few of any considerable size which empty directly upon its own coast.

The *San Francisco*, the largest on the eastern coast, has its sources in the mountains of Minas Geraes, in about lat. 16°, and pursues first a northerly and then an easterly course, and empties into the sea, in about lat. 11 degrees, after a course of about 1000 miles.

The *Tocantins*, which empties on the northern coast, near the mouth of the Amazon, rises also in the mountains of Minas Geraes, and pursues a northerly course for not less than 1500 miles.

The river *Araguaya* or *Grande*, has its remotest source in lat. 19°, and running N. empties in lat. 6° into the Tocantins. The banks of the Araguaya are peopled by many tribes of warlike savages. It affords an uninterrupted navigation, from its mouth to the centre of Brazil. The *Das Mortes* is the highest western branch of the Araguaya. It enters the Araguaya, in lat. 12°. Its entire course is 150 leagues, and is wholly within the capitania of Matto Grosso.

The *Chingu* or *Zingu* is the clearest, and one of the largest branches of the Amazon. Its course is almost entirely within the province of Matto Grosso. It enters the Amazon on the S. side, after a course of 300 leagues, in lat. 1 42 and lon. 53. 70 leagues W. of the city of Para.

The river *Tapajos* rises in the plains of the Parexis, so called from an Indian nation which inhabits them, in the very centre of S. America. It runs north between the Madeira and the Chingu, for 300 leagues, flowing into the Amazon, in S. lat. 2 25, and lon. 55 W. 118 leagues west of the city of Para, in a direct course. It is supposed, that by means of the Juruena and Arinos, branches of the Tapajos, a communication may be opened between the city of Para, and the mines of Matto Grosso and Cuiaba, which will be much shorter, and more convenient than that through the Madeira and Guapore.

The river *Paraguay* has its remote springs to the west of the heads of the Arinos, in lat. 13, and after a southern course of 600 leagues, enters the ocean, under the appellation of the Rio de la Plata. The heads of the Paraguay are 40 leagues north from Cuiaba, and approach within a few miles of the head waters of the Tapajos, a branch of the Amazon.

The river *Jauru*, which empties into the Paraguay, from the W. in lat. 16 24, is remarkable for the boundary mark erected at its mouth, in 1754. It is entirely within Brazil. It rises in the plains of the Parexis, in lat. 14 42, and lon. 58 30, and runs, for 60 leagues, in a southeasterly direction, till its junction with the Paraguay. The confluence of the Jauru with the Paraguay is a point of much importance, as it commands the navigation of both the rivers.

The *St. Lourenco*, formerly called *Porruados*, is a river of great extent, which empties into the Paraguay from the east, some distance below the mouth of the Jauru. It has its sources in lat. 15, forty leagues east of the town of Cuiaba. The river *Cuiaba* enters the western bank of the Lourenco, in lat. 17 20, and lon. 57 5. It is navigable from the town of Cuiaba to its mouth.

The *Taguari* empties into the Paraguay from the east, in lat. 19 15. The branches of this river approach within a mile of the sources of the Rio Pardo, a branch of the Parana.

The *Parana* or Great River, is a river of Brazil for more than half of its course. It rises near the city of Rio Janeiro, on the eastern coast of Brazil, and pursues on the whole a southwesterly direc-

tion, till its confluence with the Paraguay, in lat. 27 25. The *Rio Pardo* empties into the Parana, from the N. in about lat. 21.

The river *Tiete*, a branch of the Parana, rises in the eastern part of Brazil, and passing within a few leagues of St. Paul's, empties into the Parana 35 leagues above the mouth of the Rio Pardo. This river is interesting, as it forms a link in the chain of communication from St. Paul's, and the other principal places on the eastern coast of Brazil, to Cuiaba, Matto Grosso, and Paraguay. The following is the common route from St. Paul's to Cuiaba. From St. Paul's to the banks of the Tiete; then down that river into the Parana; down the Parana to the mouth of the Rio Pardo. Proceeding up the Rio Pardo, and its branches, you arrive within a short distance of the branches of the Taquari; then down the Taquari into the Paraguay; up the Paraguay to the mouth of the St. Lourenco or Porrudos; and up the Porrudos to the mouth of the Cuiaba; and up the Cuiaba to the town of the same name. Through this conveyance, salt, iron, ammunition, &c. are sent annually by the government of Brazil to the western districts. Trading parties frequently arrive at St. Paul's, from Cuiaba, in the month of February, and return in April or May.

The *Uruguay* which empties into the Rio de la Plata rises in the southern part of Brazil.

Rio Grande. There are several rivers of this name in Brazil. There is one which empties into the sea, in lat. 16 20, near Porto Seguro. This river, by means of the Jigitonhonba, one of its branches, connects the coast with the Diamond district.

Zoology.] The woods of Brazil abound in wild animals, of which the most remarkable are the jaguar, which is the terror of the peasantry; the wolf, the saratu, which has the appearance of the fox, but which is more ferocious and brave; the opossum, the sloth, the porcupine, the ounce, a species of panther, which commits frequent ravages, and which, with numerous serpents to be found in the woods, is a great scourge to the planters. The taper is the largest wild animal found in this country. It is about the size of a cow, and is sometimes hunted by the Brazilians with bows and arrows, or taken in nets. They eat its flesh, and make bucklers of its skin. Owing to the immense forests with which Brazil is covered, and to the heat and moisture of the climate, insects and reptiles abound in most parts, and are both dangerous and troublesome. The corral snake, the sorroco, and the jarraroca, are all of them much dreaded by the inhabitants, it being well known that their bite is mortal.

The *ibiboboca* or *boiguacu* often exceeds 24 feet in length, and is very large in the middle, but much smaller at the head and tail. Down the middle of the back runs a chain of black spots, a hand's breadth distant from one another, each having a spot of white in its centre; and below there are two other rows of smaller black spots towards the belly. It is extremely fierce and strong, but not venomous. The *liboya* or *roebuck snake* is said to be between 20 and 30 feet long. The rattlesnake of Brazil is unusually large. The Indian salamander is an insect with 4 legs. Its sting is said to be fatal.

Mineralogy.] The gold and diamonds are chiefly found in the beds of the mountain torrents, or in deep vallies. The principal diamond district is in the capitania of Minas Geraes, among the mountains, in which the branches of the Parana, and the Rio Francisco have their rise. All the head waters of the other great rivers, which flow northward, and fall into the Amazon, are found productive of gold. It is found for the most part in a stratum of rounded pebbles and gravel, from which it is separated by washing. The collection of diamonds, now in the possession of the prince regent, is unequalled in number, size and quality, by that of any potentate in the world; and is supposed to exceed in value three millions sterling. The largest diamond ever found in America, weighing almost an ounce, is one of the collection. These beautiful gems have been found in such abundance in Brazil, as to supply, not only Europe, but Asia; as those of India were scarce, and frequently withheld from sale; diamonds from Brazil were sent thither, and usurped their name.

The largest piece of native copper that has ever appeared, was discovered a few years since, in the capitania of Bahia. Its weight was upwards of 2,000 pounds.

UNITED PROVINCES OF SOUTH AMERICA.

(Formerly the Viceroyalty of Buenos Ayres.)

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT, BOUNDARIES, DIVISIONS, NAMES, HISTORY, RELIGION, LAWS, GOVERNMENT, POLITICAL RELATIONS, POPULATION, ABORIGINES, ARMY, NAVY, REVENUE, MANNERS AND CUSTOMS, EDUCATION, CITIES AND TOWNS, ROADS, MANUFACTURES AND COMMERCE.

Extent.] The new political union which assumes the name of "The United Provinces of South-America" claims dominion over all the territory which constituted the Spanish viceroyalty of Buenos Ayres in 1810. The line of demarkation between this country, and the Portuguese dominions on the east, has already been given under the *Divisions* of South-America. The United Provinces extend from this line, (which separates it from Brazil), to the Andes on the west; and from the parallel of about 14 S. lat. on the north, to the parallel of about 28 30, on the S. The whole length from N. to S. is about 1700 miles; and the greatest breadth not less than 1100. It is computed to contain, including the Indian territory, 1,300,000 square miles.

Boundaries.] On the N. it is bounded by the parallel of about 14 S. lat. which separates it from Amazonia; on the E. by Brazil; on the S. E. by the Atlantic ocean; on the S. by the parallel of 38 30, which separates it from Patagonia; on the W. by the Andes, which separate it from Chili; and on the N. W. by Peru. The desert of Atacama, lying along the Pacific ocean, between Peru and Chili has been commonly considered as belonging to this country. This would make the Pacific ocean the western boundary for nearly 300 miles.

Divisions.] The viceroyalty of Buenos Ayres, like all the other Spanish possessions in America, was laid out into civil and ecclesiastical divisions, which were from time to time altered, and often cast from the jurisdiction of one viceroy or governor, under that of another as convenience or caprice directed. The very nature of the colonial government was such that the territorial boundaries of the several audiences, provinces, and other divisions, were never defined with any tolerable degree of distinctness. The following table contains the most recent and satisfactory statement of the divisions of this country which we have seen. The name of province is given to each of those cities or districts, which appear to be politically distinct:

<i>Names of the Provinces.</i>	<i>Population.</i>	<i>Square Miles.</i>
*Buenos Ayres	105,000	50,000
Banda Oriental	45,000	86,000†
Entre Rios	25,000	104,500†
*Cordova	75,000	105,000
*Punta San Luis	10,000	40,000
*Mendoza	38,000	38,000
*San Juan	34,000	36,000
*Rioja	20,000	22,400
*Catamarca	36,000	11,200
*Santiago del Estero	45,000	40,000
*Tucuman	45,000	50,000
*Salta	50,000	41,000
*Jujuy	25,000	30,000
Chicas	10,000	26,400
Potosi	112,000	12,000
Misque	15,000	9,000
Charcas	120,000	5,000
Cochabamba	100,000	3,400
La Paz	60,000	10,000
Paraguay	110,000	43,200
Total	1,080,000	763,100

* The provinces marked thus, belong to the Union. They contain in the aggregate 483,000 inhabitants, and 463,000 square miles. Banda Oriental, Entre Rios, and Paraguay, are independent of Spain, but do not belong to the Union. They contain 180,000 inhabitants. The remaining provinces containing 417,000 inhabitants are yet colonies.

† This estimate includes the Indian territory of these provinces.

As this country has been for several years and still continues to be the theatre of interesting revolutions, and as the different provinces are continually changing owners, we shall be minute in describing the divisions. The following view presents them in geographical order.

The province of *Buenos Ayres* is situated on the southeastern extremity of the Union, along the sea coast, and the western bank of the Rio de la Plata.

Banda Oriental, formerly called the province of Montevideo, lies directly opposite Buenos Ayres, and is bounded by the ocean on the S. E. by the Rio de la Plata on the S. W. ; by the river Uruguay on the W. ; and Brazil on the E. Its capital, Montevideo, is now in possession of the Portuguese, who lay claim to the whole province. The inhabitants, a brave and warlike people, are at present under the dominion of the celebrated General Artigas, and are at war both with the Portuguese and Buenos Ayres.

Entre Rios, or the province of Santa Fe, lies immediately adjoining, and west of Banda Oriental and Buenos Ayres. It extends in a narrow slip entirely across the Union, from Patagonia on the south, to Brazil on the N. E. It includes the whole of the country between the rivers Uruguay, Paraguay, and Parana. This province formerly belonged to the Union, but now is in alliance with Banda Oriental, and at war with Buenos Ayres.

Cordova, lies west of Entre Rios and the Rio Salado, and extends to Patagonia on the S. It has, heretofore, revolted from the Union, but has been brought back by force.

Punta San Luis has been made out of the easterly portion of the royal province of Cuyo. It lies W. of Cordova, and is bounded on the S. by Patagonia. To the westward of the province of San Luis, stretching along the great Cordillera, which separates it from Chili, lies the province of *Mendoza*. It is in the southwestern corner of the Union. To the north of Mendoza, lying along the eastern foot of the Andes is the province of *San Juan*, formerly a part of Cuyo. Still further N. pursuing the Andes, we come to *Rioja*. Turning immediately to the E. and adjoining, we find the delightful province of *Catamarca*. Directly to the E. of Catamarca, lies the province of *Santiago del Estero*, which is bounded on the S. by the territory of Cordova, and on the E. by the Indian territory of the Llanos de Manso. Along the whole northern frontier of Santiago and Catamarca, lies the province of Tucuman. Proceeding still farther to the northward, we next enter the province of *Salta*, lying among the elevated spurs of the Andes.

Ascending still in a northerly direction, we next enter the province of *Sujuy*, stretching along the whole northern frontier of Salta. Turning to the W. and crossing the mountains, is found the province of *Chicas*, extending along the brow of the great Cordillera of the Andes, which separates it from the desert of Atacama. To the N. and adjoining Chicas lies the far famed *Potosi*. To the northeast of Potosi is the province of *Misque*, which is composed of the vallies of Pomabamba, Tomina, and Misque. Directly to the W. of Misque, and N. of Potosi lie the vallies of Charcas, or Chayanta, and

Oruro, which compose the province of *Charcas*. To the N. of *Charcas* lies the small, but prodigiously fertile territory, formerly called the valley, now the province of *Cochabamba*. Crossing the ridge of mountains which bound *Cochabamba* on the N. we enter the delightful valley of *Cicacica*. This valley constitutes the province of *La Paz*, the most northerly and remote one of the Union.

The country between the provinces we have now been describing and the river *Paraguay* is called the *Llanos de Manso*. It extends on the *Paraguay*, from the mouth of the *Rio Latirequiqui*, to the lowest extremity of the territory of the *Abipones*, a short distance above *Santa Fe*. It is an immense triangular plain of more than 200,000 square miles in extent, resembling a wedge with its point running in a southerly direction into the United Provinces. This territory is altogether owned and occupied by various tribes of Indians.

After passing in an easterly direction over this great triangle of Indian territory, the province of *Paraguay* presents itself. It lies between the great rivers *Paraguay* and *Parana*, and is bounded on the N. by *Brazil*. This province has declared itself independent, but has never been attached to the Union. On the contrary, it is in a state of hostile non-intercourse with *Buenos Ayres* and the other independent provinces.

Besides the provinces named in our table and which have now been described, there are several other small districts lying in the northwestern extremity of the Union, along the boundary of *Peru*, which are claimed by the United Provinces, as being within the limits of the late viceroyalty of *Buenos Ayres*. They are as follow: *Caranjas*, lying W. of *Potosi*; *Pacajes* or *Berenguela*, lying W. of *Paria* and *Oruro*; and *Omasuyos*, *Chucuyto*, *Puno*, *Lampa*, *Asangaro*, and some others. All these are still in the colonial state.

To the north of the *Llanos de Manso* are vast elevated plains, a great part of which are, in the rainy season, entirely overflowed, and seem to be destined to eternal vacancy, or to the rearing of innumerable herds, and to be inhabited only by their keepers. At the present they are in possession of several tribes of Indians, who are in a great measure independent. This country is divided into the *Chiquitos*, the government of *Santa Cruz de la Sierra*, and the province of the *Moxos de Musu*.

Names.] While attached to *Peru*, this whole country was called the province of *Charcas*; or rather the jurisdiction of the audience of *Charcas*. Since the separation, it has been called by various names. In the time of *Guthrie* it was generally called *Paraguay*, a name originally belonging to the river *Paraguay*, the main branch of the *La Plata*, afterwards given to the bishopric, or province, and thence transferred to the whole viceroyalty. The word *Paraguay*, according to *Charlevoix*, denotes the crowned river. Others at the same time called it *La Plata*, the name given by *Sebastian Cabot* to the river, which is formed by the *Paraguay*, the *Parana*, and the *Uruguay*. *Rio de la Plata* denotes the river of silver.

Buenos Ayres was a name given by the Spaniards, in the first place, to the city of that name, on account of its salubrious climate

Thence it was transferred to the province, and thence to the whole country or viceroyalty. After the declaration of independence, these provinces were called the *United Provinces of Rio de la Plata*. This name has been recently changed by the government for that of the *United Provinces of South-America*. The high provinces, lying along the Andes, in the northwestern section of the Union, from Jujuy, northward, are frequently called *Peru Alto* or *Upper Peru*.

History.] The river La Plata was discovered in 1516. Buenos Ayres was settled in 1535. In 1538, the province of Charcas was subdued by Gonzales Pizarro from Peru. In 1586, the Jesuits first made their appearance, and commenced their missions among the Indians.

From the settlement of the country until the year 1778, the history of these countries comprises only a series of vexations from the despotism of viceroys, of privations from monopolies and commercial restrictions, and of sufferings from wars foreign to their interests. In 1778, the Indians of the provinces of Upper Peru, made an ineffectual attempt to shake off the Spanish yoke. They assembled in great force, and under the command of Tupac Amaru, a descendant of the incas of Peru, plundered and destroyed a great many towns; but after a hopeless contest of three years, they were defeated by the combined armies of Buenos Ayres and Lima.

In 1806, the country was invaded by the British under Popham and Berresford, and the city of Buenos Ayres was taken without opposition. A few months afterwards, the British were expelled by an irregular force, collected from the country, under command of general Liniers.

In 1807, the British renewed their invasion with a formidable army under command of General Whitelock. Montevideo was taken by assault, and the main body under Whitelock proceeded to Buenos Ayres, where, after entering the city, his army was completely beaten by the inhabitants, and he permitted to re-embark the remnant of his troops, on condition of evacuating Montevideo, and the shores of the La Plata. These successes gave the people confidence in their own strength.

On the 25th of May, 1810, in consequence of the renunciation of Ferdinand VII. king of Spain, in favor of Napoleon, and the deranged state of affairs in the mother country, a junta was convened in Buenos Ayres, to take the government into their own hands, still administering it, however, in the name of Ferdinand VII. This day is now celebrated, as the commencement of the revolution, which "delivered them from the slavery they had suffered for 300 years;" and the country has been independent *de facto* from this date.

Since 1810, there have been three or four revolutions, in each of which, the form of government, so far as relates to the executive department, has been altered. During all the changes, however, there has existed a congress, consisting of the representatives

from the several provinces. On the 9th of July 1816, this congress made, and promulgated a declaration of *absolute* independence.

In December 1816, the Portuguese troops entered the territory on the east of the Rio de la Plata, and took possession of Montevideo. All the principal places on the eastern shore of the Uruguay, and of the country between the Parana and the Uruguay, have since fallen into their hands.

Religion.] The Roman Catholic religion is established as that of the state, but there are many advocates, both in conversation and writing, of universal toleration. They acknowledge the pope as a spiritual head merely, and do not think him entitled to any authority to interfere in their temporal concerns. His bull, in favor of the king of Spain against the colonists, which may be almost regarded as an excommunication, produced little or no sensation. The number of monks and nuns never were very great in Buenos Ayres, when compared with other portions of the Spanish dominions. They have diminished since the revolution. There was at one time, a positive law passed forbidding any one to become a monk or a nun, but they were obliged to repeal it, and it was afterwards passed with some modifications. The restrictions substituted, aided by public opinion, have nearly produced the desired effect. Few of the youth of the country now apply themselves to the study of theology, since other occupations, much more tempting to their ambition, have been opened to their choice.

Laws.] Since the revolution many reforms have been introduced. The number of offices has been diminished, and responsibility rendered more direct and severe. The judiciary system has undergone many improvements; the trial by jury, however, has not been introduced. The barbarous impositions on the aborigines, have been abolished; the odious alcavalla, and other obnoxious taxes, modified, so as no longer to be vexatious; and all titles of nobility prohibited under the pain of the loss of citizenship. The law of primogeniture is also expunged from their system. One of the first decrees of the sovereign assembly, manumitted the offspring of slaves born after February 1813, and emancipated all slaves that might be brought into the country after that period.

Government.] The government of Buenos Ayres declared itself independent on the 9th of July 1816, having previously exercised the power of an independent government, though in the name of the king of Spain, from the year 1810. The manifesto, assigning the reasons for the declaration of their independence contains the following among others. "Commerce," they say, "was always a monopoly in the hands of merchants of the peninsula and of their consignees sent by them to America. All public offices belonged exclusively to the Spaniards. Of 170 viceroys, only 4 have been Americans; and of 610 captains general, and governors, all but 14 have been Spaniards. The Spaniards placed a barrier

to the increase of the population of the country, by prohibiting the entrance of strangers into it, and in latter times they opened it to the immoral, to convicts cast out of the peninsula." They complain of the cruelty of the Spaniards in the assassination of the incas of Peru, and in burning the cities and villages of the Indians. They mention the diabolical institution of the mitas, under which entire nations have disappeared, buried under the ruins of mines, or perishing in an atmosphere poisoned with antimony.

These provinces have been *de facto* independent of Spain since the year 1810, when they openly made war upon her in Peru, in Paraguay and in Montevideo. Early in 1813, as soon as the province of Potosi was taken possession of by the patriots, they coined money there, impressed with the arms of the state, hoisted the national flag, and took other public steps equivalent to the most solemn declaration of the new rank which they assumed.

The general congress of the United Provinces, assembled at Buenos Ayres on the 3d of Dec. 1817, established by a provisional statute, a temporary form of government, to continue till they should have opportunity to form a permanent one. This congress is composed of deputies from the different provinces. It actually consists of 26 members. But as a representative is allowed for every 15,000 citizens, it would be more numerous, if all the provinces had sent delegates in that ratio. The provisional constitution recognizes, with few exceptions, the most important principles of free government. The subject of a permanent constitution was in 1818, before a committee of 16 members of congress. There was a difference of opinion prevailing among them on the point of a confederated or a consolidated government. If they should adopt the former they will frame the constitution, in all probability, nearly after the model of that of the United States. Should they decide on the latter, it is highly probable they will incorporate the leading features of our system into their form of government. They seem to concur in the proposition, to have a chief magistrate elected for a term of years, and a representative legislature to consist of two branches.

Political Relations.] The independence of this country has not yet been acknowledged by any foreign power. With the Portuguese government an arrangement was concluded in 1812, establishing amity between the two countries. A Portuguese army however, have, notwithstanding, entered the Banda Oriental, and now hold forcible possession of the city of Montevideo. The reason which the Portuguese commander gives for this proceeding, in his official letter, is, that it is designed "to remove the germ of disorder from the frontier of the kingdom of Brazil, and, to occupy a country abandoned to a state of anarchy." The government of the United Provinces are obliged for the present, to adopt a very cautious and moderate policy, with respect to this proceeding, because the naval force of the Portuguese, stationed in the river La Plata, could effectually blockade all their ports, and entirely destroy the great source of revenue to the state, the duties on

imports and tonnage. The British government have entered into commercial stipulations with general Artigas, as the chief of the Orientals, on the subject of their trade with the eastern shore.

With respect to the internal relations of the provinces; Banda Oriental and Entre Rios are in alliance with each other, and have been at open war with Buenos Ayres and the other provinces of the Union for several years. General Artigas is the commander of the Orientals, and has secured their strong attachment. The original cause of this division may be traced to a jealousy, long subsisting between the rival cities of Montevideo and Buenos Ayres. The overwhelming influence which the city of Buenos Ayres has acquired in the affairs of the Union, and the exertion of this influence for the promotion of her local interests, at the expense of her rivals, has given rise to much reasonable jealousy in all the provinces. Many attempts have been made to heal the differences with the Orientals, but they have all proved fruitless; and the endeavor to force them to submission, has been still less effectual. Two armies, amounting together to 1900 men, recently sent for this purpose from Buenos Ayres, were entirely cut to pieces.

The province of Paraguay presents a singular spectacle. It stands aloof from the rest, and refuses to have any connexion with them. The people, with the aid of a few remaining royal troops, a few years since, repulsed an army sent from Buenos Ayres, to compel them to join the common standard. Very soon afterwards, they expelled the royalists, and declared themselves independent. They are now entirely unconnected with the other provinces, and refuse to keep up even a commercial intercourse. Their resources, in men and money, are said to be considerable, and no country is more independent of foreign supplies.

Population.] In our table the population is stated at 1,080,000. This estimate however, does not include several of the northwestern provinces which are claimed to be within the boundaries of the Union; nor does it include any of the Indian population. The official estimates furnished by the government of Buenos Ayres to the deputies of the United States, state the population at 1,300,000, exclusive of Indians. The civilized Indians alone, it is supposed, amount to more than 700,000. The various races which compose the population are as follow; 1. Spaniards or Europeans. 2. Creoles, or the descendants of Europeans born in America. 3. *Mestizoes*, the offspring of European and Indian parents. 4. *Indians*, many of whom have some mixture of Spanish blood. 5. *Brown mixtures* of Africans and Europeans. 6. *Mulattoes* of various degrees. All these races intermix without restraint, so that it is difficult to define the minor gradations.

Aborigines.] Under the old government the Indians were most cruelly oppressed, and although the Spanish courts made many regulations for their partial relief, they were all ineffectual. The Indians were subject to a tribute to the crown, levied on males only, from the age of 10 to 50. Those in the mining districts

were besides burdened with a personal service to the crown, called the *mita*; this was a conscription raised among those subject to the tribute, in order to work the mines of Potosi. Thousands of these unfortunate people were marched every year to Potosi, and although the period of service was only 18 months, they were attended by a numerous train of friends and relatives, who, on the eve of their entering the mines, sang melancholy dirges, and sounding a horn in solemn strains, mourned over them, with all the ceremonies which they used on the death of a relative. Their wives and children remained with the conscripts, who seldom resisted more than a year, the excessive labor and noxious air of the mines. The Indians of Peru have the appearance of habitual melancholy, and still wear mourning for the destruction of their incas. According to an ancient prophecy, they expect to be one day delivered from their oppressors by a descendant of the incas, who is to revive the former glory of the nation. They are prohibited from carrying any weapon, or from exercising any trade, which might render them familiar with the use of fire arms. The Indians hand down, from father to son the remembrance of their wrongs, and constantly watch for an opportunity to revenge themselves.

The insurrection in 1778, was the most formidable, known since the conquest, and laid in ruins some of the finest towns of Upper Peru. Oruro was totally destroyed, and La Paz lost the greater part of its inhabitants by famine, while it was blockaded by the Indians. Had they known the use of fire arms, the whole of the white population of those provinces would have been destroyed. The revolutionary government, immediately on its establishment, released the Indians from the service of the *mita*, which was the most offensive to them, and from the vassalage in which they were held by their magistrates. The tribute was continued from necessity, as it afforded a revenue which could not be relinquished at this period. In 1814, however, they were relieved from this also. These measures have induced the Indians to take an active part in favor of the revolution.

The tribes of the Llanos de Manso, as well as many others to the northward, were formerly under the pupilage of the Jesuit missionaries, who, at one time, are said to have had 300,000 families under their direction; but their pastors having been withdrawn and expelled, they have returned to their ancient habits, and are now represented as very much in the same situation with the Osages and Mandans of the river Missouri.

Army.] The army according to the official statement of the government amounts to nearly 30,000 men. They are composed of 1,296 artillery, 13,693 infantry and 14,718 cavalry of which 12,143 are troops of the line, 7,041 are *Ciorcos*, and 10,573 militia. These form the different armies of Peru, of the Andes, of Cordova, and Santa Fe. This statement, however, includes only the militia of the province of Buenos Ayres. The wars which have been carried on in this country for several years past, have excited a great deal of the military spirit among its inhabitants.

Navy.] The naval armament of the government consists of two small vessels, brigs and schooners, of from two to twelve guns each, containing in all about 300 men. A great number of privateers have been sent out from Buenos Ayres which have ruined the Spanish trade, and even blockaded some ports in Spain.

Revenue.] According to an official estimate made in the year 1810, the revenue of all the provinces included in the ancient viceroyalty amounted to more than \$6,000,000. The actual revenue, of the provinces belonging to the Union for the year 1817, was 3,037,187 dollars. The national debt, at the same period, amounted to 1,438,054 dollars, and the property belonging to the government was valued at 19,055,597 dollars exclusive of the public lands. The principal source of revenue is that derived from the duties on imports and exports.

Manners and Customs.] The herdsmen or peasantry of the Pampas and plains, form a very considerable proportion of the population of the country. Thinly strewn over the great pastures, those residing at a distance from the cities, have most commonly, each one, the charge of a country many leagues in extent; they are totally illiterate, and dwell on an immense waste, in continual solitude. Their habitations are constructed in the simplest form; in general consisting of low mud walls, thatched with the long grass of the plains, tied on a lair of reeds with raw hide thongs, or stuck on with mud. The bedding and clothing of the family, and the whole household furniture, exhibit a scene of laziness and dirt; yet mingled with apparent cheerfulness, great kindness, much natural intelligence, and independence of character. From infancy the herdsman is taught to ride, and there is, perhaps, no more expert horsemen in the world. The wars that have been carried on in this country for several years past have called these herdsmen into the field of battle, and, it is said, they make the most formidable Guerilla or partizan soldiery that ever existed. In courage, they are inferior to none; and the exploits that are related of their adroit and rapid horsemanship, exceed what has been told of the Parthian, the Scythian, or the Cossack of the Don. They are usually called Guachos; an epithet, like that of Ya-kee, originally cast on them in derision but is now no longer offensive. The Guachos are usually a third or a half of Indian descent.

The herdsman's cloak or, poncho, as it is called, is a square piece of cloth, something larger than a Dutch blanket, with a slit in the middle through which the head is put, leaving it to hang down all round. This poncho is his bed at night, and by day his cloak, a belt, a saddle cover, or a bag, as fancy or necessity may require.

The *Lazo* or running noose is an instrument used by the herdsman in managing his herd, and sometimes in attacking a foe. It is a cord or thong, made of strong, well prepared hide, about 30 yards long, with an iron ring, or a loop at one end, through which a running noose, or *Lazo*, may be made in an instant; the other end is fastened to the broad circingle which secures the saddle. The *Lazo*, hung in a coil to the hinder part of the saddle, is thus ready for use. So soon as it is thrown, and takes effect, the horse, as he has been

taught, stands firm, or moves off with what has been caught. The Lazo is thrown by a herdsman with unerring aim, either on foot or on horseback, or at full speed ; at a fleeing animal or retreating foe. The herdsman of the plains is usually provided with another instrument, similar in its use to the Lazo. The *Bolas*, is an instrument made with three cords of about three feet each from the knot which unites them in the middle ; to the end of each of which is fastened a ball of about two pounds weight. The Bolas, with a few twirls over the head, is thrown like a stone from a sling, and entangling about the legs of the animal at which it is directed, instantly prostrates it at the mercy of the pursuer. This instrument, like the Lazo is usually slung to the hinder part of the saddle. Mounted and thus equipped, the herdsman is ready for a journey of a thousand miles, the protection or the seizing of his herd, or for the defence of his country.

All the wealthy and influential citizens are found grouped together in the cities and towns. It is rare to find a wealthy land owner who has not a house in the city, which is his usual place of abode ; from which his grain and grazing farms, committed to the care of peasants, are occasionally visited. The best sample of the population of the union is to be found in the city of Buenos Ayres. Since the revolution, the people of this city have had much intercourse with foreigners, and have profited by it very much. The effects of the revolution are very visible. Their habits, manners, dress, and mode of living, have been improved by intercourse with the English, Americans, and French. Great prejudices prevail against whatever is Spanish. It is even offensive to them to be called by this name. The appellation which they have assumed, and in which they take pride is that of South-Americans.

The people of Paraguay have some peculiar traits distinguishing them from the inhabitants of the other provinces. They were for a long time under the care of the Jesuits, and the effects of their system are yet visible. The present inhabitants of Paraguay are said to be a mixture of the European Spaniards and natives, with, perhaps, more than half, Indian. They are remarkably peaceful and taciturn in their temper and deportment. They are exceedingly attached to their country, and averse to strangers. They are excessively clanish ; when they have heretofore visited Buenos Ayres, for the purpose of trade, it has always been remarked, that wherever the leader of the party dealt, there all would deal, and no where else. It is rare to meet an inhabitant of Paraguay, who cannot read and write, and who does not understand the rudiments of arithmetic.

Education.] Previous to the revolution education was discouraged. Several schools were actually suppressed in the capital. In the declaration of independence, one of the charges against the mother country is, that young men were prohibited from going to Paris to study chemistry, in order to teach it on their return. Next to the establishment of their independence, the education of their youth appears now to be the subject of the most anxious interest. There is a university at Cordova, and a college at Buenos Ayres, besides an academy in which are taught the higher branches, and

eight public schools for whose support, the corporation of the city contributes about 7,000 dollars annually ; and according to the returns of the year 1817, the number of scholars amounted to 864. There are five other schools exclusively for the benefit of the poor. It is now rare to meet with a boy ten or twelve years of age in the city of Buenos Ayres who cannot read and write. There are no prohibited books of any kind ; all are permitted to circulate freely. This alone is a great step towards the emancipation of their minds from prejudices. There are several bookstores whose profits have rapidly increased ; a proof that the number of readers has augmented in the same proportion. There has been a large importation of English books, a language becoming daily more familiar to them. Eight years ago, the mechanic art of printing was scarcely known ; at present there are three printing offices in the city of Buenos Ayres from which three weekly newspapers are issued, all advocating republican forms of government. The library of the state, kept in the capital, contains nearly 20,000 volumes : the greater part rare and valuable. It is formed out of the library of Jesuits. A very valuable addition has been lately made of several thousand volumes brought to Buenos Ayres by M. Bonpland, the companion of the celebrated Humboldt.

Cities and Towns.] **BUENOS AYRES** is built on the S. W. bank of the La Plata, in lat 34 37 S. and lon. 58 13 W. Ships cannot approach within a considerable distance of the shore, and are compelled to unload by lighters. The river here is 30 miles across, and is merely an open road. The opposite bank being low, is rarely visible. The creek *Reachucio* falls into the La Plata, on the E. border of the town. Small craft only can enter it. The town extends about a mile along the bank, and half a mile in breadth. The streets are all straight, and cross at right angles. The parade is a large area, 40 rods square, in the middle of the town, from E. to W. The castle, on the N. side of it, fronts the river. The cathedral, on the N. W. side of the parade, is spacious and elegant. The cupola is of excellent workmanship, and the interior profusely decorated. There are three other churches, and several monasteries, and nunneries. The town hall on the S. W. side of the parade, is large and handsome. All these edifices are built of a beautiful white stone, found in a plain not far from the town. The streets are broad, and paved with sidewalks, but not in the middle. The houses are of brick, and about 6000 in number. Most of them have gardens before and behind, and many have balconies with latticework, for the reception of flowers and shrubs. Their interior is, however, very dirty. The population is estimated at 62,000 souls. About half are whites ; the rest are Indians, negroes, and mixed. The town is well supplied with provisions.

MONTE VIDEO was settled in 1726, by a few individuals ; and, in 1731, fourteen or fifteen families, from Palma, one of the Canary islands, came here, and laid the foundations of the city. It stands on the N. shore of the La Plata, in lat. 34 55 S. and lon. 56 4 W. on the only good port in the river. The harbor has a narrow entrance, is of a circular shape, about 4 miles across, has a soft, clayey bottom,

and is deep enough for ships of the first rate. The harbor and town derive their name from a high mountain on the western point, which may be seen 15 leagues. The town occupies the whole of a peninsular promontory, that forms the eastern point of the harbor. The fortifications are to the N. of the town. They are built of stone, and reach across the breadth of the isthmus. The fort is strong, has 4 bastions, and is mounted with brass cannon in the centre; the barracks are bomb proof. The garrison generally consists of 4 or 500 men. The town makes a handsome appearance from the harbor; as it is built upon an ascent, and the houses appear interspersed with gardens and trees. The houses are all of stone or brick, and most of them one story. The roofs are flat, and the floors of brick, though some have only earth. Few have glass windows or chimnies. Fire is generally kindled in the yard, or in separate kitchens; and in cold wet weather, is brought into the rooms in fire pans. The streets are staight, and cross each other at right angles; but are very rough, and incommodious. Near the top of the town is the market place, about 300 yards square. On the W. is a large church. This city was taken by the British in 1807, but soon afterwards given up. In January, 1817, it was taken by the Portuguese, who are still in possession. The population at present, it is supposed, does not exceed 10,000. Formerly it was much greater.

POTOSI owed its origin to the well known silver mines, and was founded soon after their discovery, in 1545. It stands in lat. 20 26 S. and in lon. 66 16 W. about 60 miles from La Plata, on the S. side of a mountain of the same name, and is about 8 miles in circuit. The churches are remarkably magnificent, and profusely decorated with utensils and ornaments of gold and silver. The houses in general are well built, and are most sumptuously furnished. The town, according to Helms, contains 70,000 inhabitants, exclusive of slaves and others, to the number of 30,000 employed in the adjacent mines; making its whole population 100,000. Of the inhabitants about 10,000 are Spaniards, many of them noble and very wealthy, and magnificent in their mode of living. The air of the mountain is cold and dry, and the adjacent country is remarkably barren. Provisions, fuel, and timber for building, are brought from a great distance. The two last are very expensive. The militia of the place, about 500 in number, are described as making a wretched appearance.

LA PLATA was founded, in 1538, on the site of the large Indian town *Chiquisica*. It stands in a small plain, environed by eminences, which defend it from the wind. The houses in the great square are of two stories, but the others are of one. They are covered with tiles, are very roomy and convenient, and have gardens furnished with European fruits. The inhabitants amount to about 14,000. The cathedral is large, and of good architecture, much ornamented with gilding and painting. There is another church, 5 monasteries, 2 nunneries, and a hospital. There is also a university dedicated to St Francis Xavier. Two leagues from the city runs the Chilcomayo, on which are a number of pleasant villas. About 6 leagues from it, on the road to Potosi, runs the Pilcomayo. During some months of

the year, this river furnishes the inhabitants with a great abundance of fish; particularly *dorados*, which weigh from 20 to 25 pounds.

LA PAS was founded in 1548, in a fruitful valley, at the foot of one of the high ridges of the cordillera. It contains 5 churches, a cathedral, 5 monasteries, 3 nunneries, a college, about 4000 houses, and 20,000 inhabitants.

ASSUMPTION stands on the E. bank of the Paraguay, a little above the mouth of the Pilcomayo, and 977 miles from the sea. A fort was built here in 1538, which, from the convenience of its situation, soon grew into a city. It contains about 500 Spanish families, and several thousands of mestizoes and Indians. The Spaniards pride themselves on their descent from some of the best families of Spain. Contiguous to the town there is a single mountain of extraordinary height. The adjacent territory is very fertile, abounding in fine native and exotic fruits; the climate is genial and temperate; the trees are clothed in perpetual verdure; and the rich pastures feed numerous herds of cattle.

MENDOZA is situated near the southwestern corner of the Union, on one of the branches of the Tunugan, immediately at the eastern foot of the Andes. It contains about 21,000 inhabitants.

SAN JUAN DE LA FRONTERA lies at the eastern foot of the Andes, north of Mendoza, and contains about 19,000 inhabitants.

CHARCAS or CHAYANTA, the capital of the province of Charcas lies N. of Potosi. It contains 30,000 inhabitants.

YAGUARON is a large town, inhabited solely by Indians, about 20 miles below.

The other towns shall be mentioned in a geographical order, beginning at the N.

PUNO is the most northern town of any size in the viceroyalty. It is built on the W. bank of lake Titicaca, and is rich and populous, containing 2 handsome churches. The Indians manufacture large quantities of woollen cloth.

CHUCUITO is on the E. side of the same lake, and is a beautiful village. The inhabitants drive a beneficial trade in dried and salted beef.

SANTA CRUZ DE LA SIERRA stands at the foot of a chain of mountains, which bounds the country of the Chiquitos Indians to the N. and thence runs N. E. towards lake Xarayes. The site of the town is a circular peninsula, formed by the river Guapay. It is large and populous, but ill built. The houses are of stone, thatched with palm leaves.

OROPESA, the capital of Cochabamba, is in lat. 19° S. and lon. 66 10 W. It carries on a profitable trade in provisions with Potosi.

ATACAMA, in lat. 23 30 S. is only 100 miles from the Pacific ocean, on which it has a little port, called *Cobija*. The province of Atacama, of which it is the capital, is an extensive desert, between Chili and Peru.

JUJUI is a small town, containing about 3000 inhabitants. It carries on a profitable trade with Potosi.

SALTA is pleasantly situated on the Arias, in a valley surrounded by mountains, in lat. 24 15 S. It is regularly divided by 4 broad streets. The market place is an extensive square, on one side of which stands a large and beautiful town house, and opposite to it the principal church. There are 7 churches, 600 Spanish families, and about 9000 inhabitants. The trade is extensive with Potosi, Peru, and Chili.

SAN MIGUEL DE TUCUMAN, was built in 1549, and is a pleasant little town, on a branch of the Dulce.

SAN YAGO DEL ESTERO stands on a flat, surrounded by forests, on the W. bank of the Dulce, which is here large and navigable. It contains 4 churches, and 500 families, chiefly mestizoes and mulattoes. The inhabitants are disfigured by wens.

CORRIENTES stands at the confluence of the Parana with the Paraguay, and has a church and 3 convents.

CORDOVA is in lat. 31 30 S. and in lon. 63 30 W. in a marshy soil, on a small river, called the Primero, which is lost in the salt lakes to the S. E. It carries on a considerable trade with Peru. The streets are paved. The cathedral is a handsome edifice; and the public square spacious, and adorned with buildings of considerable magnitude. It contains about 1500 whites, 4000 negroes, and a number of Indians. The climate is healthy and temperate, and the adjacent territory highly productive.

SANTA FE, about 240 miles N. W. of Buenos Ayres, is built of brick, and is a town of middling size. It stands at the confluence of the Salada with the Paraguay. Population about 6000.

ST. SACRAMENT, nearly opposite Buenos Ayres, was founded by the Portuguese in 1679, and, after occasioning many disputes, was ceded to Spain in 1788. It has a tolerable port, formed by the islands of St. Gabriel. The fortress on one of these is a strong one.

MALDONADO is an open harbor near the N. entrance of the La Plata. It is fortified.

Roads.] The Pampas are, in rainy seasons, very wet, and in places there are great spaces of soft mud; for want of stone or wood, the roads cannot be rendered firm for carriages. There are few places of refreshment or repair, and the distance over them is prodigious. The carriage of burden, is, therefore, accommodated to these circumstances. The Tucuman and Mendoza carts, at a little distance, look like thatched cabins slowly moving over the plain. The whole machine is destitute of a nail, or a bit of iron; its great coarse wheels, are not less than eight feet in diameter; six oxen, in general strong noble animals, move it. The load on an average is not less than four thousand weight. On the journey, the oxen are unyoked, occasionally through the day, and at night, are permitted to seek their food round about. Thus, without any other provision than what is necessary for himself, the carrier pursues his way over a waste for thirty days.

From Buenos Ayres to Mendoza the distance is 900 miles, and the fare is from 140 to 200 dollars the cart load downwards; but, to the westward, the fare is only about 40 dollars the load. The route is performed in 30 days. From Buenos Ayres to Cordova is 450

miles, the fare per cart load, 25 dollars; and the journey is performed in 16 or 18 days. From Buenos Ayres to Jujuy is 1200 miles, and is the utmost extent to which the roads are practicable for wheel carriages; the fare is about 200 dollars.

Mules are used for transportation in every direction over land, as well where carts can, as where they cannot travel. But they are most commonly employed to traverse the mountains, and to bring down to Buenos Ayres, the productions of the high provinces. A mule load is, usually, four hundred pounds weight. The carriers who make a business of transportation by mules, have from 50 to 100 of these animals in a drove; and, whatever may be the route they pursue, they carry no provisions with them, nor purchase any by the way for these beasts of burden. Either on the plains, or in the mountains, the patient, hardy animal, relieved of his pack, is turned loose at night, to gather his food, and take his rest; and, in the morning, the load is replaced, and he is driven on, very commonly, the whole day without stopping.

The mail leaves Buenos Ayres, for the northwest, four times in the month. The whole distance to La Paz, is little short of 1900 miles; and the mail usually reaches that city from Buenos Ayres in forty days. Extraordinary expresses it is said, have gone through in twelve days.

The usual route from Monte Video to Buenos Ayres is, by water, 55 leagues. The shortest passages are 24 hours; the longest 14 days. In the dry season the best route is by land, to San Carlos, 120 miles, and thence in a ferry boat, 10 leagues to Buenos Ayres.

Manufactures.] The effect of the revolution has been to injure the manufactures of the country. Many articles which were formerly supplied by their domestic manufactures, are now obtained from England. In the city of Buenos Ayres there is a public manufactory of arms.

Commerce.] Under the old government, commerce was a monopoly in the hands of merchants of Spain, and of their consignees sent by them to America. At present the export and import trade is principally in the hands of the British, though the United States and other nations participate in it to a certain degree. It is depended on as the great source of revenue to the state; hence they have been tempted to make the duties very high. This has led to a regular system of smuggling. The exports are calculated with some degree of accuracy at ten millions of dollars per annum. They consist, principally, of hides, jerk beef, and tallow, the present great staples of the country; a variety of furs and peltry; some grain; copper, mostly brought from Chili; with gold and silver in bullion, and in coin, derived from the mines of Potosi, and from Chili, in return for foreign manufactures, sent thither by the way of Mendoza. The imports are computed to be about equal to the exports. British manufactures form the principal mass, consisting of woollen and cotton goods of every description; ironmongery, cutlery, hardware, saddlery, hats, porter, ale, cheese, &c. From the United States they receive lumber of all kinds, and furniture, coaches and carriages of all sorts, codfish, mackerel, shad and herring, leather, boots and

shoes, powder, naval stores, ships and vessels, particularly those calculated for their navy, or for privateers. From Brazil they receive sugar, coffee, cotton, and rum. From the N. of Europe they receive steel and iron; and from France a number of articles of its manufacture. Their foreign commerce is principally carried on by British capitalists, though there are some American, and a few French, and other foreign merchants.

The city of Buenos Ayres is the seat of this commerce. From it, foreign and some domestic goods are spread through the interior, as far as Chili and Upper Peru. This trade is carried on principally by land, as is that between the different provinces, though some small portion of it finds its way up and down the large rivers forming the La Plata. The abundance of cattle, horses and mules, furnish facilities for transportation, not to be found in any other country so little improved.

One of the principal branches of internal commerce, is the trade in mules, which are sent in droves, from Cordova and the neighboring provinces, over the Andes, into Peru. This traffic, although at present wholly cut off by the war, deserves notice as illustrating the state of the country, and the nature of its productions. At two and a half years old the mules were purchased of the breeders in the Banda Oriental, Entre Rios, and other provinces, and gathered in herds near Cordova, where they were wintered, and remained about six months. Thence they were taken up to Salta, where they spent a second winter; in which time, they obtained their full growth, and were put in good order for the prodigious journey they had before them. Thus somewhat gentled, seasoned and prepared, they were presented for sale in the great mule fair of Salta, where they were sold at from 10 to 15 dollars a head. The drover, having purchased as many as, assisted by his hirelings, he could manage, which was, on an average, two or three thousand; he set out on his journey toward Lima; which, taking into account the circuits he would be obliged to make to find pasturage for the drove, may be safely computed at not less than two thousand miles; and a great part of the way over the crags and defiles of the most rugged and lofty portions of the Cordilleras, among which many of his mules commonly strayed off and were wholly lost. To reach Lima with two thirds of the number with which the journey was commenced from Salta, was reckoned a successful voyage. Mules, which cost in Salta fifteen dollars, were sold in Lima for twenty five or thirty dollars. One year with another, there were, in this manner, travelled over from Salta to Peru, from fifty to seventy thousand mules. All the labor and transportation, by beasts of burden in Peru has been, until lately, performed entirely by mules; and they seem to be the only animals which can be trusted along its precipices, and labor under its burning sun. This mule trade has now been so long cut off, that the stock of these useful animals in Peru, is nearly exhausted, and the conveniences and the productions of the country are materially affected by it. The price of a good mule now in Peru, is more than three, or four times what it was in the years before the revolution.

The trade with the Indians is of considerable value. *Trinkets*, cutlery, coarse cloths, and brandy, are exchanged for horses, cattle, furs, and skins. As soon as the articles to be sold arrive at an Indian village, after the customary present to the cacique and his family, he blows a horn and collects his subjects at the signal. The terms are agreed on in the lump, the cacique distributes the articles, and the merchant knows none of his debtors. At the appointed time the merchant re-appears, the cacique again sounds his horn, and each brings in faithfully his own portion of the payment.

The exports from this territory, between 1748 and 1753, amounted to an annual average of gold, in ingots, \$282,352; silver, coined and uncoined, \$700,000; vicuna wool, 300 quintals, \$38,400; and 150,000 hides, \$600,000, in all \$1,620,752. The amount of gold and silver received by Spain from January 1, 1754, to January 1, 1765, 11 years, was gold \$2,142,626, silver \$10,326,090; in all \$12,468,716.

In 1796, the whole amount of exports from this territory was about \$7,500,000, of which nearly four millions was gold and silver sent to Spain. The imports were about \$5,400,000.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE, FACE OF THE COUNTRY, SOIL AND AGRICULTURE, PRODUCTIONS, DESERT, RIVERS, LAKES, MOUNTAINS, BOTANY, ZOOLOGY, MINERALOGY.

Climate.] THE climate on the coast is healthy and temperate. The northerly winds when moderate, last for several days, and have the effect of the Sirocco on the feelings. When violent, this wind seldom lasts longer than 24 hours, shifting to the south and south-east with rain and thunder. These storms are invariably terminated by a Pampero or southwest wind. The west and northwest winds blow with great violence but are not frequent. During the prevalence of the southwest winds, the atmosphere is remarkably dry. On the immense plains or pampas in the south, animal putrefaction scarcely goes on at all. Animal substances dry up. This drying quality in the air enables the inhabitants to burn in their furnaces and kilns, the flesh and bones of animals. Sheep were formerly dried, stacked, and sold at two dollars and a half the hundred for these purposes.

Face of the Country.] The province of Buenos Ayres and the southern parts of Entre Rios and Cordova constitute a part of a vast plain, or Pampa, which extends beyond the southern boundary of the United Provinces into the country of the Patagonian tribes. Measured in its entire extent, this Pampa is 1500 miles long, and from the ocean to its western limits 500 broad. Over all this immense

space there are no trees, nor hills. The eye passes round and round the horizon as over the face of the ocean in a calm, without a single object to relieve or vary the scene. The keen blasts called the Pamperos sweep over it without the least obstruction. This interminable plain is one of the most expanded and awful solitudes on earth.

The residue of the territory of Cordova, not embraced as Pampa or mountain, all that of Santiago del Estero, with so much of Tucuman and Salta as lies below the mountains is in general an elevated, dry, sandy plain, destitute of timber, except near the water courses. This vast plain as well as that of the Pampas seems destined to eternal pasturage.

To the southward of the mountains of Cordova, and to the westward of the Pampas, including the whole of the province of the Punta San Luis and the eastern part of the province of Mendoza is another district of mere pasturage. It is a high, dry, broken plain, and perhaps the most barren and unproductive of any in the Union.

The territory east of the river Paraguay, including the Banda Oriental, the northern part of Entre Rios, and the province of Paraguay is a fine, waving, well watered country, and well supplied with timber.

The Llanos de Manso and the country north of it, we have already described, as consisting of vast elevated plains. Embracing the residue of the Union under one view, we find an extensive mountainous district, stretching along below the eastern brow of the Andes, from Mendoza to La Paz, and spreading out over the whole of the province of Jujuy; as low down as the confines of the Llanos de Manso.

Soil and Agriculture.] The great Pampas to the west of Buenos Ayres are covered with a soft, black, rich soil, producing good wheat, barley and Indian corn; but the crops frequently fail. The grounds in the neighborhood of cities throughout the Union are highly improved. In general however, the lands are badly tilled. The temptations to pasturage, for which the country is eminently suited, are so strong, that agriculture has been much neglected. The soil of the Banda Oriental is uncommonly productive and well adapted to all kinds of grain. Hitherto, however, it has been applied to no other purpose than pasturage, and the rearing of cattle, mules and horses. The province of Paraguay is considered the fairest portion of the Union. Its soil is every where exceedingly fertile and productive. The sugar-cane grows well; also Indian corn, wheat and barley. All the European fruit trees flourish and produce well. The orange, fig, olive and vine grow luxuriantly. The mining districts in the high provinces are also agricultural. Population has gathered about the mouths of the mines; and agriculture was made necessary for the support of those who came to dig, or to profit by digging for silver and gold. Recourse was had to the neighboring vallies, and the cultivation of their generous soil, has in many respects been found more profitable and exposed to fewer disappointments than mining.

Productions.] Enjoying every variety of climate to be found between different and distant latitudes, and blest with a large portion of fertile soil, this country is capable of producing all that is to be found in the temperate or torrid zones. Immense herds of cattle and horses graze on its extensive plains, and constitute at this time its principal source of wealth. Hides, tallow, horns, wool, and hair, and the skins of wild dogs, sheep, and other animals are furnished in the greatest abundance. Salted beef might also be furnished in any quantity, but the present government has thought proper to prohibit the putting it up. The provinces of Cordova, Tucuman, Santiagodel Estro, and Salta produce Indian corn, wheat, barley and rice, fine potatoes, oranges, figs, grapes, tobacco, timber and lime. In the forests of Paraguay are found mahogany, and several other kinds of beautiful wood, suited to cabinet work, besides an abundance and variety of timber, excellently adapted to domestic and naval architecture. In Paraguay also, the sugar-cane grows well, and all the European fruit trees flourish and produce abundantly. The high provinces in addition the precious metals produce copper, tin, lead, and iron, also rice and cotton, of which last article Catamarca is uncommonly productive. There is also derived from the heights and obscure retreats of the mountains, a considerable quantity of peltry ; of which Gunaca, Vecuna, and Chinchilla skins, are the chief. The Gunaca wool is equal to merino ; and the wool or fur of the Vecuna, seems not only to be capable of being manufactured into the finest cloth ; but, hats made of it, rival in lightness and fineness of texture, those made of beaver.

Desert.] The desert of Atacama lies on the western side of the Andes, along the coast of the Pacific ocean, between Peru and Chili. It may be said to commence in Chili, almost immediately after crossing the river Juncal ; thence to the river Salado, the northern boundary of Chili, is a distance of fifty miles ; thence to the town of Atacama, in the viceroyalty of Peru, is a distance of nearly three hundred miles ; and the road passes wholly over a dry, sandy plain, where the traveller meets no living thing either of the vegetable or animal kingdom ; and losing sight of every other guide, his way is often only to be directed by the bleached bones of mules, which have perished in attempting to force a passage over that terrible waste. In travelling from Peru to Chili, instead of passing this dreary region, it is generally thought safer and better to climb the steep crags of the mountains, and take the road leading over the Andes, along their giddy precipices and narrow passes. Travellers and post riders sometimes cross the desert of Atacama along the lower and more level road, but few or no traders, or carriers ever venture to pass that way ; nor, it is presumed, would any military leader lightly, be induced to encounter its difficulties.

Rivers.] The La Plata opens into the ocean, between cape St. Anthony on the S. and cape Santa Maria on the N. These capes are 150 miles apart. Its average breadth for about 70 miles, is 120 miles. A little below Montevideo it narrows suddenly, between point Carretas on the N. and point Piedras on the S. and at that city is only 80 miles broad. Thence to Buenos Ayres, 120

miles from its mouth, it gradually narrows, and is there only 30 miles across. It retains this width about 20 miles farther to the mouth of the Uruguay. The Rio de la Plata, is said by navigators to have many dangerous singularities, and materially to differ from every other known river of the world. No vessel drawing more than 18 feet water, can pass up to Buenos Ayres; and all navigators are cautioned to beware of its singularly changeful currents, and the destructive blasts, called Pamperos, which occasionally sweep over its surface. The Paraguay, the main stream of the La Plata, has heretofore been described.

The Pilcomayó, or *River of Sparrows*, is the largest western branch of the Paraguay. It rises in the western Cordillera, and receiving from the N. W. the *Araguay*, which passes between Potosi and La Plata, runs N. of E. through the mountainous country and into the plains of Chaco, about 600 miles. Here bending southward, it runs S. E. upwards of 450, falling into the Paraguay by two mouths, more than 50 miles apart. Between its two channels lies an extensive island, low and marshy; which, in the rainy season, is often wholly overflowed, as are the river's banks to a great distance. In its progress through the plains of Chaco, it abounds with alligators, which are distinguished for their voracity. The Pilcomayo is very difficult of navigation.

The Vermejo, or Red river, rises in Tarija, a mountainous district, to the S. of Potosi. In length and size it is not greatly inferior to the Pilcomayo. Its current is very gentle, and the ascent, by the aid of regular southern breezes, is as easy as its descent. Few rivers are equally navigable.

The Parana, which robs the Paraguay of its name, descends from the mountains of Brazil. Its main stream, the Rio Grande, heads in the mountainous region of *Mineas Geraes*, and running N. of W. a great distance, is enriched by the waters of the Paranaíba, a large stream from the same mountains. Here the Parana turns to the S. W. and soon after to the S. by W. a course which it continues as far as Trinidad. Its direction is thence W. upwards of 200 miles, to Corrientes. In lat. 24° is the fall of *Itu*, formed by a collection of rocks, that rise in separate masses, and leave channels like embrasures for the passage of the water. Boats pass down without difficulty, and are drawn up by ropes. The Parana runs in a broad, deep, channel, and seldom overflows its banks. Its length and size are little inferior to those of the Paraguay. The *Iguazu*, a short but rapid stream, from the E. falls into the Parana in lat. $25^{\circ} 30'$.

The Salado, or Salt river, is the largest tributary of the La Plata, from the W. It rises in the mountains of Tucuman, and runs a southeasterly course of 850 or 900 miles, emptying its waters at Santa Fe, in lat. $31^{\circ} 40'$.

The Tercero rises in the mountains of Achala, S. W. of Cordova; and before it leaves the highlands, passes over a considerable fall. Coming to the plains, it disappears in the dry season, and is lost in the sands, but breaks out again at some distance. In times

of rain it increases very much, and brings down with its rapid current great quantities of wood. Its course is winding, and its banks, for 60 miles after it leaves the mountains, are full of high willow trees. Below, it flows through rich pastures, and at Cruzalta takes its native name of *Zarcarana*.

The Uruguay rises in the eastern part of Brazil, and runs for a time nearly parallel with the mountains. Its course is S. W. and S. and its length not less than 1200 miles. The quick accumulation of the waters from the mountain torrents renders it extremely rapid; and when it leaves the hilly country, it attains so great a breadth, 690 miles from its mouth, that a ten oared boat requires half an hour to cross it, though it runs there with a moderate current. It is navigable for more than 200 miles from its mouth. On the whole it is a rocky and turbulent stream of difficult navigation. It abounds in fish, and the country through which it passes, is romantic, beautiful, and fertile.

The Rio Negro is a beautiful river, emptying into the Uruguay from the E. 54 miles from its mouth. It is navigable for all vessels that can pass over the bar in the La Plata, as far as Capilla Nueva about 40 miles from its mouth.

The Barombon is a broad channel for numerous lakes, that lie in the plain of Matanza, S. W. of Buenos Ayres, to the La Plata. The largest of these lakes are *Reduction*, *Sauce*, *Vitel*, and *Charcamuz*. It is sometimes near a mile in breadth, having neither banks nor falls, but a very broad, flat bottom. When at its greatest increase it is not more than one fathom deep in the middle. During the greatest part of the year it is entirely dry.

The Saladillo may be considered as a continuation of the *Rio Quinto*, which rises in the hills of Yacanto, and loses itself in a marshy lake, called *Punto del Sauce*; but in the rainy season, communicates, by various channels, with the Saladillo, which breaks out a little farther. This last runs very low, most of the year; and at Callighon, 20 miles from its mouth, where it is very broad, is scarcely ancle deep. Yet in the beginning of October, it swells prodigiously, rises above its banks, and is there nearly 9 feet deep. The flood lasts about 3 months. It empties into the La Plata about 50 miles from cape Anthony.

The Dulce, or *Sweet river*, rises in the mountains of Tucuman, and watering San Miguel, and San Jago del Estero, loses itself in the salt lakes N. E. of Cordova. It flows nearly parallel with the Salado, and is a river of considerable length.

The Mamore, or *Rio Grande*, and the Magdalena, both rise on the N. side of the mountains of Chiquitos, in the extensive province of Santa Cruz de la Sierre, and running N. W. a long distance through the valley of the Amazon, at length unite and form the Madeira, the great southern arm of the Amazon, and the largest tributary stream on the globe.

Lakes.] Lake Titicaca lies between the two cordilleras of the Andes, in the N. W. part of the union. Its figure is irregular, but inclining to oval, and its longest diameter is from S. E. to N.

V. It is about 240 miles in circuit, and in some places from 70 to 80 fathoms deep. It is navigated by ships, but is subject to storms and tremendous gusts of wind, descending from the mountains. The waters are turbid, and have a nauseous taste, but abound with fish. Immense quantities of water fowl frequent it, and the shores are covered with flags and rushes. The surrounding country is populous, and fertile, thick sown with towns, and villages. Ten or twelve rivers fall into the lake. It has several islands; the largest of which, *Titicaca*, was the early residence of Manco Capac, the illustrious founder of the Peruvian monarchy. It was here that he first conceived the design of civilizing the wandering and naked savages, who inhabited the mountains and plains around him. Here Capac, and Mama Oella Huaco, his sister, and wife, first declared themselves *the children of the sun*, sent by their beneficent parent to reclaim the human race from ignorance, and barbarity. The nations around them revered their persons, and followed their instructions. On this island, ever held sacred by the Peruvians, they built a most splendid temple of the sun enriched and decorated with every ornament which their mountains could furnish. Besides the plates of gold and silver, with which its walls were adorned, it contained an immense collection of treasure; as the subjects of the incas were under an indispensable obligation of visiting it once a year, and offering some gift to the memory of Manco Capac. When the Spaniards invaded the island, to plunder the temple, the Peruvians threw the whole of its treasures into the lake, to prevent it from becoming a prey to their sacrilegious invaders.

The Desaguadero, or drain of Titicaca, runs out of the lake, and terminates in the lake of Paria. Over the drain still remains the bridge of rushes, from 8 to 100 yards long, which Capac Yupanqui, the fifth inca, constructed for the transportation of his army, in order to subdue the provinces of Collasuyo.

The lake of Paria is of considerable size, and has no visible outlet; but abounds with eddies, and whirlpools.

The lake of Iberi, or Caracas, lies between 28 and 30° S. lat. E. of the La Plata, and S. of the Parana. It is of an irregular figure, upwards of 100 miles in length, and 40 in breadth. It is studded with islands, which are covered with wood, and stocked with deer and other game. Vast quantities of wild fowl are seen over its surface, and fish of an excellent quality abound in its waters. It has two outlets. The Corrientes, sometimes called the St. Lucia, issues from its western side, and pursues a S. W. course to the Parana, emptying at St. Lucia, in lat. 30° S. The Mirinay, also called the Iberi, a much larger stream, runs out at the southeastern corner, and pursues a southern course to the Uruguay.

Mountains] The eastern part of the mountains of Tuyu, is called by the Indians *Voolcan*, which the Spaniards have altered to *Vulcan*. The middle part of it is called *Tandill*, from a summit of that name, the highest in the whole chain. The western point of the chain is called *Cayru*. Its whole length is 40 leagues from

W. to E. ; and it terminates about 6 leagues from the sea. These mountains have between them large and pleasant vales of uncommon fertility. On the N. they rise abruptly from the clayey plain of Tuyu, and are visible in a clear day at the distance of 20 leagues.

The Andes skirt the viceroyalty on the W. and have heretofore been described. In the province of Charcas, numerous smaller ridges lie E. of the principal chain, forming successive steps to the plains below.

The chain of mountains, called by Humboldt, the *chain of Chiquitos*, parts from the Andes about the latitude of 19° S. ; and pursues, for a great distance, an eastward course, a little N. of Potosi, and La Plata, between the sources of the Pilcomayo and the Madeira. In the country of the Chiquitos Indians, it bears to the N. as far as the sources of the Paraguay, which it separates from those of the Ytenas, a branch of the Magdalena, and those of the Topayas, and the Zingu, tributaries of the Amazon. Thence it bears to the S. E. dividing the waters of the Parana from those of the Tocantin. We know not whether it terminates here, in the province of Minas Geraes, in Brazil, or whether, as is probable, a chain extends from it northward, forming the height of land in that kingdom, and separating the waters of the Tocantin and the San Francisco ; while another passes to the S. not far from the coast, dividing those of the Parana from the small primitive streams of southern Brazil.

Botany.] The *algarova* is a large tree of the size of an oak ; in Tucuman, Paraguay, and farther N. ; has a strong, durable, coarse grained, red timber ; and yields a sweet fruit, enclosed in pods, of which the inhabitants make a considerable harvest, grinding it into flour. The *molie* is also a large tree, growing in Tucuman. There are two sorts. Their leaves are used to tan the fine goat-skin leather of Tucuman. The larger kind bears a small, sweet fruit, of the size of a currant. There are two species of *quiabrahacho* or *breakaxe*. The *white* has leaves like box, and very hard, heavy timber, of the color of boxwood. The *red* has leaves like the yew, and is the larger. Its timber can only be worked when green, is as red as blood, and can scarcely be distinguished in its color or hardness from red marble. The *pine* of the Andes, on the borders of Chili, is large, and lofty ; has a solid, hard, white timber, yielding excellent masts. *Guaiacum*, *dragon's blood*, the *balsam of caaci*, that called *aquaribaigh*, *gum isica*, and various other medicinal gums are found in the forests. Ginger, and many other plants of spontaneous growth, abound in most parts. Extensive forests of the *quiquina* are found in Los Charcas, along the Andes. In the province of Paraguay grows that singular vegetable so much in use over all S. America, called *matte*, or the *yeba* of Paraguay. It is a perennial plant, rather a tree than a shrub ; and when full grown is about the size of a common apple tree. Every spring when the tree puts forth its succulent boughs to about the length of two or three inches, and when the leaves are

about half formed, the young shoots are cut, gathered, and carefully dried; and when perfectly cured, are put up in sacks made of raw hide, and sent abroad over all the adjoining provinces. The yerba is prepared by boiling it in water like tea. The use of it extends to all ranks and classes, and has grown into as inveterate and necessary a habit, as the use of tea in the United States. The *coca*, of the district Ciatica, is the genuine *betel* of the East Indies, and is chewed in the same manner. The plants of the Andes are similar to those mentioned in Peru.

Zoology] The wild horses and cattle of the pampas have already been mentioned; as have the *llama*, the *guanaco*, and the *vicuna* or *faco*. These three produce the bezoar stone. The *puma* has been called the American lion. It is much smaller than the African, and usually of a gray color; but, in Chaco, it has a long red fur. There are two kinds of tigers, the *jaguar* and the *cougar*. The former is of the size of the ounce, with spots similarly shaped and arranged, on a ground of bright yellow, and is very cruel and ferocious. The cougar is of a lively red, smaller, and equally fierce. The *yaguaru* is an amphibious animal, apparently of the tiger kind, and as large as an ass. The *anta* is between the elk and the buffalo, of the size of a large ass, and of remarkable strength. It yields the bezoar stone, and its flesh is preferred to the flesh of cattle, which it resembles. The *peccari*, or Mexican hog, is found in Paraguay. The *tapir* is of the size of a small cow, of a dark brown color, never stirs out but at night, is gregarious, lives chiefly in marshes, and has a skin of so firm a texture, as often to resist a bullet. The *tatas*, or *armadillo*, is very common. The *paca* burrows like a rabbit, is larger than a hare, fat and bulky. Its flesh is excellent food, and the animal is easily domesticated. The *chinna* resembles a little dog in appearance, and is of the polecat species, as is the *zorillo*, the fur of which is in some request.

The *emu*, the ostrich of S. America, is generally 6 feet high from the head to the feet. Its legs are 3 feet long, and its thighs nearly as thick as those of a man. The feathers are gray upon the back, and white upon the belly. It is fleetier than the swiftest dog. The *condor* has heretofore been mentioned. Carrion vultures are common. The *disfertador* is the *preacher* of Guiana. The *macagua* is a kind of sparrow. The *guicape*, or *ringing bird*, has a note resembling the sound of a bell. Mocking birds are common. The *zumbador* is the night hawk of New-England. Of geese there are 6 varieties. Ducks are also in great abundance and diversity. The other birds are pheasants, partridges, and pigeons, as well as eagles, kites, owls, and falcons.

The fish of the rivers are large, and of numerous varieties. Many of them are excellent food. Turtles are not very common. Seals and sea lions are very numerous on the coast; as are alligators in the rivers.

Innumerable are the tribes of reptiles and insects. Serpents chiefly infest the forests. The *jacumama* is probably inferior in size to no reptile on the globe. Some of them have been found 50 feet

long, though they are usually about 30. They are very voracious, have no venom, but conquer their prey by crushing it in their folds. Their breath is said to possess an intoxicating quality. The *austile* is a worm of the silkworm species. Numbers of them together, form a web of the greatest symmetry and regularity, and of such a texture, consistency, and lustre, as cannot be decomposed or tarnished by any practicable expedient. Within the web each forms a cocoon, of coarse, short silk. The web is the most durable and most beautiful writing paper that is known. Innumerable swarms of bees are found all over the country. The *cochineal* insect is found in Tucuman. The *cameleon* grows to a great size. Some have been seen 2 feet in length. Glowworms and fire flies, mosquitoes, ants, centipedes, scorpions, *blatte*, wasps, and locusts are extremely numerous. Lizards abound in the marshes.

Mineralogy.] In the high provinces along the Andes, each town and valley from that of Uspillata near Mendoza, to Chichas, Potosi and La Paz, has had, or now has some productive mine in its neighborhood. Besides the precious metals these provinces produce copper, tin, lead, and iron. It is impossible to estimate with any accuracy the exact produce of the mines within the boundaries of the United Provinces. They have heretofore been so intimately connected with the neighboring mines in Peru and Chili, that we cannot estimate the produce of either of these countries separately, since the revolution, the mines have been very much neglected, owing to the country's having been in so distracted a state, and so much the seat of war.

According to Helms, there were, at one time 73 mines in actual operation within this country, viz. 30 gold mines; 27 silver; 2 tin; 7 copper; and 7 lead.

The mines of Porco were those from which the Peruvians drew most of the silver, which embellished their palaces and temples. That of Potosi, the richest that ever was known, except one in Mexico, was discovered by accident. An Indian named Hualpa, in 1545, pursuing some mountain goats, and climbing up the rocks, laid hold of a small shrub to support himself. The roots gave way, and laid open to his view a mass of pure silver. It was in a mountain of a conical shape, almost 18 miles in circumference, at the base, chiefly composed of a yellow, argillaceous slate, full of veins of ferruginous quartz, and with a soil naturally dry, cold, and barren. Some of the mines in it have been sunk to the depth of 200 fathoms. Altogether about 300 mines are sunk in the mountain. It is now extensively undermined, the rock has been opened at the bottom and galleries dug horizontally to meet the veins of silver. Previous to the year 1638, or in the first 93 years in which they were wrought, the king's 5th of the silver produced and registered from the mines of Potosi, according to the public accounts, had amounted to \$395,619,000 or \$4,253,967 per annum, for the average produce. The sums clandestinely taken away, or converted into the utensils and ornaments of churches and convents, cannot be calculated. The produce has gradually increased. The amount of gold coined at Potosi, in 1790, was \$299,846, and of silver \$2,983,176.

CHILI.

CHAP. I.

HISTORICAL GEOGRAPHY.

EXTENT. BOUNDARIES, DIVISIONS, NAME, ORIGINAL POPULATION, HISTORICAL EPOCHS, ANTIQUITIES, RELIGION, GOVERNMENT, POPULATION, ARMY, NAVY, REVENUE, MANNERS AND CUSTOMS, LANGUAGE, LITERATURE, THE ARTS, UNIVERSITIES, CITIES AND TOWNS, ROADS, MANUFACTURES AND COMMERCE,

Extent.] IN its widest extent, Chili has been considered as including the whole of the narrow strip of territory, lying along the coast of the Pacific ocean, west of the Andes, and extending from the Rio Salado in about lat. 25° S. to the straits of Magellan, in about lat. 54° S. a distance of nearly 2000 miles. The country S. of the 43d degree of S. lat. however, has never been explored, and is inhabited by the various independent tribes of Patagonia. On this account, we prefer to consider it under the head of Patagonia. Chili, therefore, properly so called, and as we shall consider it, is the country lying between the Andes and the Pacific ocean, from the 25th to the 43d degree of S. lat. It is about 1300 miles long, and on an average 140 broad, containing about 180,000 square miles.

Boundaries.] Chili is bounded on the N. by the desert of Atacama, which separates it from Peru; on the E. by the Andes, which separate it from the United Provinces of S. America; on the S. by Patagonia; and on the W. by the Pacific ocean.

Divisions.] The part of Chili which is inhabited by the Spaniards; that is, from the northern boundary to the river Biobio, is divided into districts, most of which extend from the Andes to the Pacific, through the whole breadth of the country. The following are the names of these districts, arranged in geographical order, beginning in the north. Those mentioned in the first column, border upon the Pacific; those in the second column border upon the Andes, and lie directly E. of those in the first column to which they are opposite. Those in the first column which have none opposed to them in the second, extend from the Pacific to the Andes;

Copiapo

Guasco or Huasco

Coquimbo

Cuscos

Petorca

Quillota

{ Aconcagua
{ Santa Rosa.

Melipilla	Mapocha
Rancagua	
Colchagua	
Curico	
Maulc	
Canquenes	Isla de Maulc.
Itata	Chillan
Puchacay	{ Rerc
Concepcion	{ Isla de la Laxa

The territory, occupied by the warlike tribes of Araucania, extends from the river Biobio, in lat. $36^{\circ} 50'$ to the river Totten, in lat. 39° and from the Andes, to the Pacific. It is divided into four provinces, by lines running N. and S. The province upon the sea coast is called Languen Mapu. The names of the others are Lelbun Mapu, Yuapire Mapu, and Pive Outalmapu.

The country, between the river Totten, and the southern boundary of the state, is called Huilli Mapu.

Name.] The name *Chili*, or *Chile* as it is sometimes spelt, is said to be derived from the note of the *thili* or *chill*, a species of thrush, a bird very common in the woods, in this country. It had the same name before its subjugation by the Spaniards.

Original Population.] It is highly probable that Chili was originally peopled by one nation; for all the aborigines spoke the same language, and were of a similar appearance. Some of their traditions represent their ancestors as having come from the N; others from the W. Those on the plains were of the ordinary stature of men; those on the Andes surpassed it. Their complexion was of a reddish brown, easily changing to white. One tribe, dwelling in Baroa, near the river Cauten, was absolutely white. They were divided into 15 independent tribes. These, beginning at the north, and proceeding towards the south, were the Copiapins, the Coquimbans, the Quillotanes, the Mapochinians, the Promaucians, the Cures, the Cauques, the Pencones, the Araucanians, the Cunches, the Chilotes, the Chiquilianians, the Pelhuenches, and the Huilliches. They were employed chiefly in agriculture. They cultivated maize, pulse of various kinds, the potato, the pumpkin and gourd, the guinea pepper, the great strawberry, and a variety of other plants peculiar to Chili. Their domestic animals were the Araucanian camel, the rabbit, and, if tradition is to be credited, the hog and the domestic fowl. They were acquainted with the use of manures. Their agricultural instruments were the spade and the plough, both entirely of wood, and the latter of a very rude, inconvenient construction. The plough was drawn by the camel. From the earth they extracted gold, silver, copper, tin, and lead; and wrought them into various instruments. They made axes, hatchets, and other edged tools, usually of basalt, sometimes of bell metal copper. They were not acquainted with the use of iron. Their cloths were of camel's wool, variously dyed. Their vessels were principally of clay, sometimes of hard wood, and even of marble. They varnished their earthen vessels with a mineral called *colo*. Some of their marble vessels were admirably polished. The walls of their houses were generally of wood, plastered with

clay ; sometimes of brick. The roofs were covered with rushes. They lived in villages, each of which was governed by an hereditary chief, of limited authority, called *ulmen*, which signifies a *rich man*. They formed aqueducts and canals. Several of these are in perfect preservation ; particularly one near St. Jago, which is many miles in extent, and remarkable for its solidity. They were unacquainted with the art of writing. Their paintings were rude and disproportioned. They could express any quantity in numbers ; and their advances in astronomy and surgery were singular among savages.

Historical Epochs.] We know nothing of the Chilians before the middle of the 15th century. Yupanqui, the inca of Peru, invaded Chili, in 1540, subdued the four northern tribes, and extended his conquests to the river Rapel, in lat. 34° S. The Promaucians, who lived S. of that river, defeated his army with great slaughter, and compelled him to retreat. The conquered tribes paid him tribute ; but retained their own form of government.

In 1535, Diego Almagro, a Spaniard, the companion of Pizarro, invaded Chili with 570 of his countrymen and 15,000 Peruvians, by the road which leads over the Andes. Of the Spaniards 150, and 10,000 of the Peruvians perished on the mountains from severity of weather. The remainder, after experiencing a variety of fortune, advanced into the country of the Promaucians, where they met such a reception as to induce them to abandon their enterprize and retreat to Peru. In 1540, Chili was again invaded by the Spaniards, under Pedro de Valdivia, the quartermaster of Pizarro. He met with various repulses from the northern tribes ; but at length penetrated to the river Mapocho, a branch of the Maypo, on which he founded the capital. He afterwards advanced into the country of the Araucanians, and founded therein the cities of Imperial, Villarrica, Valdivia, and Angol ; but, in December, 1553, his army was routed, and their general taken and afterwards slain. From that period to the year 1773, the Spaniards carried on many wars with that valiant nation, without being able to subdue them. In the last of these, which was concluded by a most terrible battle in 1773, they expended 1,700,000 dollars out of the royal treasury. The Araucanians are now absolutely independent, and keep a resident minister at St. Jago.

In 1587, the English under sir Thomas Cavendish, landed at the desert port of St. Quintero, but were soon compelled to leave the country.

The Dutch met with similar success in 1638.

In 1810, during the troubles in Spain, the people of Chili took the government into their own hands. Still holding out the idea, however, of a reunion with Spain when circumstances would admit.

In 1814, the royal troops from Peru invaded Chili, and on the 2d of October of that year, entirely defeated the patriots at Rancagua, and reconquered the country. The remnant of the patriot forces fled over the Andes, where, with other Chileno refugees, and two negro regiments and officers from Buenos Ayres, they were reorganized, under the name of the United army of the Andes, and, in 1817, after crossing the Andes, re-entered Chili, with Gen. San Martin at

their head, vanquished the royal troops at Chacabuco, and thus restored the independence of the country. The passage of this army with its artillery, across the Andes, deserves to be ranked among the most celebrated achievements recorded in history. It was effected with the loss of about 5,000 horses and mules, and a small number of men, who perished with the cold.

The royal troops who escaped from the battle of Chacabuco being reinforced by all the royal forces in Peru, 5,000 in number, renewed the contest with the patriots; but after a temporary success, they were finally defeated in the decisive battle of Maipu, fought on the 5th of April 1818.

The declaration of absolute independence is dated February 12th 1818.

Religion.] The Church in all the Spanish possessions in America, was well provided for; in Chili, particularly so. There are said to be about 10,000 monks and nuns in the whole country; and the religious institutions, with which they are connected, it is estimated, hold nearly one third of the landed property of the country. In addition to the landed estates, held by the religious institutions, they have what are called their censos, or money lent out at interest of five per cent. per annum to the amount of ten millions of dollars; and besides their share of the tithes, the clergy have the first fruits, or *anatos*, which yield to each curate between two and three hundred dollars per annum.

There are two bishoprics in Chili. That of Santiago comprehends the territory from the river Salado to the Maule; and that of Concepcion, the country from the Maule to the island of Chiloe.

Government.] The colonial government of Chili, like that of all the other Spanish colonies, was a simple unqualified despotism in which the people had no voice, nor influence. After the separation from Spain in 1810, the government was committed to a Congress, which was dissolved when the royal forces took possession of the country. At present the supreme authority is in the hands of a director, who is absolute. It is expected, however, that a congress will soon be called, and a government organized on republican principles. This measure is delayed by the director, only till the state of affairs shall be such as to make it safe.

The government of the Araucanians is a species of aristocracy.

Their country is divided into four grand divisions or tetrarchies. The tetrarchies are subdivided into provinces, and the provinces into counties. The tetrarchies are independent of each other, but confederated for the public welfare. They are governed each of them by a magistrate called a *toqui*; who possesses but the shadow of sovereign authority. The provinces are governed by officers called *apo-ulmenes*, and the counties by those called *ulmenes*. All these dignities are hereditary in the male line, and proceed in the order of primogeniture. Every important national question is determined by a general diet or council. In time of war, the diet elects the general, and during his continuance in office, the *toquis* and all other civil officers are divested of their authority. The laws of the Araucanians are few in number. Treason, murder, adultery, robbery, and witch-

craft are punished with death. Inferior crimes are punished by retaliation.

Population.] According to a census, made a few years since, during the first period of the patriot government, the population of Chili is set down at 1,200,000, exclusive of independent tribes of Indians. All this population except the small parcels of Valdivia and the islands, is situated altogether north of the river Biobio; and if from this portion of Chili, is deducted all that dry unproductive district to the north of the river Juncal, which, except a few Vecuna hunters, has not an inhabitant upon it, then it will appear that nearly the whole of this population of 1,200,000 is seated between the rivers Juncal and Biobio, on a territory of about 80,000 square miles, making 15 to the square mile.

What proportion of the 1,200,000 are Indians, cannot be exactly ascertained. In almost every valley there is a Pueblo or town of peaceful and submissive Indians, and, in the whole country, there are besides about 50,000 held in slavery. The mixture of the European and Indian race, in and about the Indian towns is very common. The Huasos, or peasantry are all of this mixed class. There are very few of the African race, not more than 1000 in all the country. By a law passed during the first epoch of the patriot government, the children of all slaves born after that date were declared free from their birth. Upon the whole, it is universally admitted that the population of Chili has less of the African blackening, has a smaller proportion of slaves, and is, altogether, more homogeneous, than any other part of Spanish America.

The whites are composed principally of emigrants from the south of Spain, and their descendants. The descendants of Europeans, who are called *creoles*, are described as unusually well made, and free from personal deformity; as ardent in their imaginations quick and penetrating in their discernment, and sagacious in observation; as frank, lively, liberal, intrepid, inconstant, and fond of pleasures. Extemporaneous rhymes are common among the peasantry. Hospitality prevails every where in the cities, and in the country to such a degree, that travellers are entertained freely without any idea of compensation.

The negroes of Chili are treated with a humanity honorable to the government and the inhabitants. Those, who by their industry obtain a sufficient sum of money to purchase a slave, may ransom themselves by paying it to their masters. Great numbers in this way have actually been set free. Those who are ill treated, if they can find any one willing to pay a fair price for them, can compel their masters to dispose of them. Such instances are unusual.

The Araucanians are of the common height and size of men, muscular, robust, well proportioned, martial in their appearance, and very rarely deformed in their persons. Their complexion is a reddish brown. They have round faces, small, expressive eyes, a nose rather flat, a handsome mouth, even and white teeth, muscular, well shaped legs, and small, flat feet. They have scarcely any beard, are rarely gray before sixty or seventy, or bald or wrinkled before eighty. They are courteous, hospitable, faithful, grateful for kind-

nesses, jealous of their honors, ardent, intrepid, patient of hardships, enthusiastic lovers of liberty, and generous and humane to the vanquished. The Spaniards, who trade with them, deposite their merchandize in their cabins, certain of being punctually paid at the time agreed on. Their history, from the first incursions of the Spaniards, to the year 1776, furnishes a long list of battles evincive of a valor, which no fatigue could weary, and no danger dismay ; a valor not surpassed at Thermopylæ or Marathon. Unhappily they are also addicted to the foibles and vices inseparable from the half savage state, presumption, a haughty contempt for other nations, drunkenness, and debauchery.

Army.] The following is the official statement of the military strength of Chili, made by the government in July 1818.

<i>Regular Troops.</i>	
10 Battalions of infantry of 600 each	6,000
5 Regiments of cavalry	1,400
2 Battalions of artillery, of 500 each	1,000
	<hr/>
	8,400

<i>Militia.</i>	
20 Battalions of infantry, of 720 each	15,400
22 Regiments of cavalry, of 600 each	13,200
3 Companies of artillery	360
	<hr/>
	28,960

The regular army is styled the United Army of the Andes, and is composed, to a considerable extent, of troops from Buenos Ayres, including two regiments of Buenos Ayres negroes. Of the officers, there were but two Chilenos in it, above the rank of captain. With regard to the militia, the estimate includes only so much of the country, as was, at the time, in the power of the patriots ; that is, about two thirds of the whole.

Navy.] The navy of Chili consisted in 1818, of one vessel of 52 guns ; one of 36 ; two of 22 ; one of 18 ; one of 14 ; three gun-boats and a sloop. These vessels have all been recently purchased, and are altogether officered and manned by foreign seamen, chiefly Americans and English. Indeed, it is said, that there is not a sailor to be found among all the people of Chili.

Revenue.] The whole amount of the revenue of Chili for the year ending 12th February 1818, according to the official statements of the government, was 2,177,967 dollars ; and the expenditure during the same period was 2,119,595 dollars. More than two-fifths of this revenue was derived from forced loans, and fines and confiscations imposed on the property of godos or Tories. The other principal sources of revenue are the receipts of the custom house ; the common internal revenue ; voluntary donations ; duties on tobacco ; proceeds of the mint ; duties on the mines, &c. The expenses of the government in time of peace, it is supposed will not exceed half a million.

Manners and Customs.] The inhabitants are luxurious in their mode of living. The men dress in the French, the women in the Peruvian fashion. The peasantry dress like the Araucanians.

The Araucanian dress is made of wool, and consists of a shirt, a vest, a pair of short, close breeches, and a very convenient cloak, in the form of a scapulary, with an opening in the middle for the head. The lower classes have all these articles of greenish blue, as do the higher, except the cloak, which is of various colors. Polygamy is universal. Their women are scrupulously neat in their houses and persons. Bathing is universally practised both by men and women. They bury their dead the third day after death, covering them with earth or stones in the shape of a pyramid. The corpse, if a man, is surrounded with his arms; if a woman, with a plenty of provisions, and her ornaments.

Language.] That of the whites is Spanish.

The natives, have but one language throughout the whole country, the islanders and the mountaineers, those in the 24th and those in the 45th degrees of latitude. This, considered as the language of a barbarous nation, is singularly rich, flexible, melodious, and regular. It has also great precision and strength. Its alphabet has all the proper letters of the Latin, together with the *u* of the French, and the *c* mute, the nasal *g*, the *ch* and the *th* of the English. It has no guttural letters, and no vocal aspirate. The accent usually falls on the penultimate vowel.

The radicals amount to 1,973 in number, and are mainly monosyllables or dissyllables. The nouns have three numbers, but one gender, and but one declension formed by subjoined prepositions. The adjective is not declined, and is compared like the English. The infinitive of the verb like the Greek ends in *n*. The verb has five moods and nine tenses, two voices and one conjugation in each. Unlike most barbarous languages, the Chilian abounds in adverbs, conjunctions, prepositions, and interjections.

Its syntax is like that of the modern European languages, except that it will admit of greater involutions in the arrangement of words.

Literature.] The Spaniards in Chili have made but little progress in the cultivation of the sciences. The expense of books is so great as to discourage literary exertion. Previous to the revolution, there was no printing press in Chili. Many of the Chilian youth, after finishing their course of academical education, are sent to Lima, to gain a knowledge of the civil and canon laws.

Few barbarous nations have made as great advances in science as the Araucanians had made at the time of the first Spanish invasion. They divided the year into 12 months of 30 days each, and to these added 5 intercalary days. Their seasons consisted of 3 months each; their day of 12 hours, 6 being assigned to the day and 6 to the night. Those of the day they determined by the height of the sun, those of the night by the position of the stars. They were acquainted with the planets. The fixed stars they divided into constellations.

Their surgeons were skillful in replacing dislocations, in repairing fractures, and in healing wounds and ulcers. Their physicians, however, had very doubtful claims to skill or information.

The Arts.] The fine arts are in a very low state in Chili, as are also the mechanical, if we except those of carpentry, and the working of metals. These have been greatly improved by the introduction of some artists from Germany.

Oratory is held in very high estimation among the Araucanians. Their speeches are of the Asiatic cast, highly figurative, allegorical, and elevated, abounding in parables and apologues. They call their poets *gempin*, lords of speech. Their poetry contains strong and lively images, bold figures, frequent allusions and similes; and possesses in a high degree the power of moving the heart. Allegory may be said to be its essence, and unrestrained enthusiasm its prime characteristic. Their music is extremely harsh and disagreeable. They were originally acquainted with the game of chess, and with a game similar to backgammon.

Universities.] There is a royal university at St. Jago.

Cities and Towns.] ST JAGO is the capital. It is situated in lat. 35 31 S. and in lon. 69 35 W. 90 miles from the ocean, and 21 from the Andes. It stands on the southern bank of the Mapocho, an arm of the Maypo, in a delightful plain, of 72 miles in extent. The city is about 10 furlongs in length, from E. to W. and nearly 6 from N. to S. A large suburb lies on the southern side, called St. Isidore, separated from it by a street of 144 feet in width; and the Mapocho separates it from the suburbs of Chimba, Cannadilla, and Renca, on the N. A mountain, called St. Lucia, stands almost contiguous to the houses on the E. The streets, like those of all the other cities and villages of Chili, are straight and intersected at right angles. They are paved, and are 36 feet in breadth. Near the middle of the city, is the grand quadrangular piazza, or public square, being 450 feet on each side, with a beautiful fountain of bronze in the centre. On the N. side are the palace of the royal audience, the town house, and the public prison. The W. side is occupied by the cathedral and the archbishop's palace. The S. side consists of shops, each decorated with an arch, and the E. is a row of noblemen's houses. St. Jago contained, in 1776, 46,000 inhabitants. The number at the present time is about the same. The private houses are handsome and pleasant. They are built of adoves or unburnt bricks, and, on account of earthquakes, are usually of one story. This is true of all the towns in Chili. There are 11 convents, 7 nunneries, 4 parochial churches, 3 hospitals, a royal university, a mint, and barracks for the soldiers in St. Jago. The building of this town commenced on the 24th of February, 1541.

CONCEPTION, is the second city in rank in Chili. It lies in lat. 36 43 S. The city was first built on a beautiful bay, which is 10 miles from N. to S. and 9 from E. to W. The mouth of this bay is divided by the island of Quiriquina, forming 2 entrances, the eastern, which is the safest, 2 miles in breadth, the western about a mile and a half. Both have sufficient depth of water for the

largest ships. Concepcion was founded in 1550. During the two following centuries it was thrice burnt by the Araucanians, and twice destroyed by an earthquake. In 1751, the inhabitants rebuilt it on the N. side of the Biobio, about a league from the sea, and, in 1776 it contained 13,000 inhabitants.

VALPARAISO, the port of St. Jago, and the most commercial city in Chili, lies in lat. 33 3 S. and in lon. 77 29 W. The harbor is capacious, and so deep that ships of the largest size can lie close to the shore. The population does not exceed 6,500 souls. It has a parish church and several convents of monks. It lies in the province of Quillota. The port is the most frequented in Chili, although open to the N. N. E. and N. W. winds, which blow with great violence in the winter, accompanied with a heavy sea. The country near the town is very barren, and all the supplies are drawn from Quillota. That abundant district furnishes, at a very cheap rate, supplies for the vessels that frequent Valparaiso. Until the late revolution, the only commerce from this port was with Lima.

VALDIVIA, or **BOLDIVIA**, in lat. 39 58 S. and lon. 73 20 W. is one of the largest and most populous cities in Chili. Its harbor is the safest, the strongest by nature and art, and the most capacious of any on the western coast of America. The city is 9 miles from the sea, on a river of the same name.

The following towns are arranged in geographical order, beginning in the N.

Copiapó, the capital of the district of the same name, is a small town situated in 26 50 S. lat.

The port of *Guasco* or *Huasco* in the district of Guasco, is in lat. 28 26 S.

Coquimbo or *La Serena* is on the S. bank of the river Coquimbo, within half a league of the coast. The town is regular and well built, and is surrounded with gardens, which produce all the tropical fruits in great perfection. The port is one of the most secure on the Pacific.

Quillota is on the S. bank of the river Quillota. The town occupies a great space, each house having a garden adjoining, where the inhabitants raise vegetables and fruit for the supply of Valparaiso.

The port of *Herradura de Quintero*, a little N. of Valparaiso, is one of the best and safest harbors in these seas. The road direct to Santjago, however, is so rugged and mountainous, that this advantageous port has been neglected.

Melipilla is beautifully situated near the N. bank of the river Maipo.

Rancagua, called also *Santa Cruz de Triana*, is 26 leagues S. of Santjago, on a branch of the river Rapel.

San Fernando, the capital of Colchagua district, lies S. of Rancagua or Triana. *Curico* is still farther S.

La Mercedes de Manso commonly called *Canquenes* is the chief town in the district of Canquenes. The town of *Bilbou* at the mouth of the Maule is also in the district of Canquenes.

Chillan is a well built town in 35 58 S. lat. The port of *Talcahuano* in the bay of Concepcion is the largest and most secure on the coast of Chili,

Villarica, on the river Totten, in the country of the Araucanian Indians, was formerly occupied by the Spaniards, but is now abandoned.

Osorno is in the Huilli Maypu in the 41st degree S. lat. 6 leagues S. of Rio Bueno. This town was formerly destroyed by the Indians. It was rebuilt in 1796, and is now a flourishing settlement.

Roads.] Chili is made up to a considerable extent of detached vallies, separated from each other by high ridges or mountains, passable only for mules. At present there are but three carriage roads in all Chili: one, which has been made at a considerable expense, over three or four very elevated ridges, from Santiago, the capital, a distance of nearly 100 miles, to Valparaiso, the principal seaport on the Pacific. There is another road, passable for carriages, between the same cities, by the way of Melipilla, 30 or 40 miles farther. The third is from the city of Santiago to the city Concepcion, a distance of 435 miles. Except these, there is not another road on which a wheeled carriage can be travelled with safety out of the particular valley to which it belongs.

Chili communicates with Peru by two roads, one by the seacoast, through the dreary desert of Atacama, a distance of 300 miles; the other, over the mountains, along the craggy steeps and giddy precipices of the Andes. The last is generally preferred. The commerce with Buenos Ayres, and the rest of the provinces east of the mountains, is carried on through the passes of the Andes. The pass most frequented is that of Putaendo or Uspallata, leading from St. Felipe to Mendoza, and is the one by which all travellers, from Buenos Ayres to Santiago de Chile, cross the Andes. The distance from Santiago de Chile to Mendoza, along this route, is 300 miles, and common carriers usually perform the journey in 7 or 8 days. There is another pass over the Andes to the N. of this, leading from the city of St. Felipe el Real, to San Juan, called the Patos. It was through the two passes of Putaendo and Patos, that San Martin conducted the army which fought the battle of Chacabuco, took or destroyed all the royal army, and restored Chili to the patriot power. Farther to the N. the mountains are wider, and the passes are much longer than that of Putaendo, and as rugged. There is a pass to the southward of Santiago, which is said to be much easier than that of Putaendo, and still farther to the S. the Andes are said to subside into such gentle slopes, that a good carriage road might be had, the whole way from Chili to Mendoza; but the country is in possession of the savages. The pass of Putaendo, the Patos, and most of the others, are utterly impracticable for mules in the winter season, but during that time, they are continually passed on foot.

Commerce.] While Chili was a Spanish colony, European goods to the amount of more than a million of dollars were sent from the mother country, in exchange principally for gold and silver. Grain, wine, fruits, tallow, leather, wood and copper were sent to Peru ; and iron, cloth, linen, hats, baize, sugar, oil, tobacco, earthenware, and all kinds of European goods received in return. Chili is now delivered from its colonial bondage, and its commerce is beginning to seek new and more natural channels. It is yet in an unsettled state. As regards foreign commerce, the market of Chili may be considered as being yet untried, and very imperfectly known. Many articles of foreign manufacture are just beginning to be used, and the demand increases as the people become acquainted with their utility. There are some few articles of the growth or manufacture of the United States, which have been found to answer, as saddlery, wind-sor chairs, furniture, tobacco, and some others ; of the European fabrics, those of France and Germany are greatly preferred.

From the opening of the ports by the patriots, in February, 1817, to July, 1818, the imports into Chili in British vessels amounted to about \$1,800,000 ; and in vessels belonging to citizens of the United States, to about \$1,300,000. The imports consisted of arms, ammunition, tobacco, iron, furniture, India goods, French goods, and jewelry ; but, principally of British goods. The principal articles of export from Chili at present are gold, silver, copper, tin, wheat, flour, hemp, cordage, hides, tallow, jerk beef, vicuna, guanaco, and chinchilla skins, and several kinds of dried fruit, figs, raisins, &c.

Chili is now, and must long continue to be the great granary of all the countries fronting on the shores of the Pacific ocean. The ports of Chili, also, it is supposed, will be the outlets of all the rich mine districts of the Andes, as well those on the E. of the Andes, as those within its own territory. Great advantages are expected to accrue to the commerce of the United States from the independence of Chili ; not only from the new market which it opens to our productions ; but also from the conveniences which the free ports of such a country afford to our vessels trading to the islands of the Pacific, and to the northwest coast. During the last war between Russia and England, a press was erected in Valparaiso, for the purpose of packing hemp, and large quantities of that article were sent to England.

CHAP. II.

NATURAL GEOGRAPHY.

CLIMATE AND SEASONS, FACE OF THE COUNTRY, SOIL AND AGRICULTURE, RIVERS, LAKES, SEA, ISLANDS, MOUNTAINS AND VOLCANOES, EARTHQUAKES, BOTANY, ZOOLOGY, MINERALOGY, MINERAL WATERS.

Climate and Seasons] THE climate of Chili is remarkably salubrious. Contagious diseases were not known before the introduction of the small pox by the Spaniards. The fever and ague, the rickets, the black vomit, the leprosy, the hydrophobia, and many of the maladies peculiar to hot countries, are not known.

Chili may be divided, as to its climate, into two regions; the variable and humid region, south of the Maule, where the weather is changeful, and it rains occasionally throughout the year, as in the United States; and the invariable and dry country to the north of that river, where it does not rain for two thirds of the year, and in the most northerly provinces of which it rains not at all. Throughout the whole of the dry country, extending from 25° to 35° of S. lat. a distance of nearly 700 miles, not a cloud is to be seen above the horizon, from the month of November to the month of May. The atmosphere, during this period, is perfectly clear, and the dews are scarcely perceptible, nor is the heat oppressive. The proximity of the Andes tempers the air, and the mercury fluctuates between 70 and 80 of Fahrenheit; and rarely rises to 85 degrees. Thunder storms, so frequent on the east of the Andes, are unknown in this part of Chili.

Face of the Country.] From the Andes to the Pacific, the inclination is so great, that all the rivers flow with the rapidity of torrents, and are therefore, not navigable. They serve to irrigate the vallies, and render them exceedingly fertile. Through a considerable extent of country, to the N. and S. of Santjago, there is no valley, nor scarcely a field, which is not so situated, as to be regularly irrigated from some river or stream of water.

Chili has been called the Switzerland of America. It is composed to a considerable extent, of vallies surrounded by high mountains or ridges. In most cases there are little openings in these ridges, more or less rugged and precipitous, and passable only for mules, by means of which the society of one valley carries on its intercourse with that of its vicinity. To the traveller who passes through Chili, wandering through these delightful vallies, the scenery is frequently exceedingly grand. Passing from north to south, he scarcely ever loses sight of the towering summits of the Andes on the right, and now and then, ascending an eminence, or looking through an opening in the ridge, which lifts its brown side almost perpendicularly above the waves, he has a distant view of the great Pacific ocean.

South of the river Maule, the country is abundantly clothed with fine timber, and forest trees ; but north of that river, there is only here and there a solitary tree. From the Biobio to the valley of Aconcagua inclusive, is a land flowing with corn, wine, and oil ; and from thence to the northern boundary, is the dry and comparatively sterile regions of the mines of tin, copper, silver, and gold.

Soil and Agriculture.] The soil of the vallies of Chili is of a rich, black, chocolate color, and is wonderfully fertile. A great deal of the fertility of the country, however, is to be attributed to the peculiarity of the climate. The grain is sown at the commencement of the rainy season, or soon after it sets in ; after that is over, the field is regularly watered from a neighboring stream ; there is not much dew, no rain, and never a wind to break or prostrate the stalk of the grain during the period of its growth ; thus, furnished with an abundance of water at the root, a fervid sun, uninterrupted either by fogs, or rains, or heavy blasts, or cold seasons, urges the soil to exert all its energies, and brings the fruit to perfection.

The abundance of water and peculiarity of the climate enable the inhabitants to raise all the fruits of the earth in great perfection. The wheat which is cultivated in the vallies, is of excellent quality, and the produce seldom less than forty times the seed ; sometimes ninety ; and on the best land even one hundred. Barley is raised in great quantity for the use of horses and mules, which in the winter, are fed on this grain, mixed with chopped straw, as in Arabia and Old Spain. There is not much Indian corn raised, because, as is said, it requires its top as well as its root to be moistened. In all the humid region, and in every part where the soil can be regularly irrigated, hemp may be produced in any quantity. The vine is very generally cultivated, and with great profit, but the means used for making the wine are rude and awkward. The raisins when carefully prepared, are very fine. Figs grow in great abundance and perfection. The olive tree also, grows to a great size, and yields abundantly. Cotton is here and there cultivated for their domestic manufactures ; and there is one sugar plantation. The climate and soil is well adapted to the culture of sugar ; but the inhabitants have been long accustomed to get that article from Lima, in exchange for their wheat, and they are not disposed to change their ancient habits. Rice likewise, would grow on their low lands, but it is brought from Lima. The stocks of cattle are every where numerous, particularly from Aconcagua to the southward. The cattle are of a large size.

Rivers] Few countries are so well watered as Chili. Lying at the foot of the Andes it naturally receives the waters produced by the melting of that immense body of snow, which annually falls upon those mountains. There are 123 rivers of considerable size in the country, which run westward. Of these, 52 fall directly into the ocean. The course of all these is necessarily short, yet 8 of them are navigable at least half their distance for ships of the line. These are the Maule, the Biobio, which is 2 miles in breadth, the Cauten, the Tolten, the Valdivia, the Chaivin, the Bueno, and the Sinfondo, which empties into the archipelago of Chilioe. All these rivers are very rapid in the hilly country ; in the maritime districts they flow

more slowly. Their beds are very broad, their bottoms generally stony, and the banks low. None of them, however, overflow their banks. The Mapocho, on which St. Jago is situated, runs 5 miles under ground.

Lakes.] There are 3 salt lakes in Chili, near the coast, each about 20 miles in length; the Bucalemu, the Caguil, and the Bojeruca. Of the fresh water lakes, in the interior, the largest is the Laquen, lying in the country of the Araucanians. This lake is about eighty miles in circumference, and is the source of the Totten.

Sea.] The archipelago of Chiloe, near the southern extremity of Chili, is upwards of 200 miles in length, and about 100 in breadth. It has two communications with the ocean. That N. of the island of Chiloe is only 3 miles wide. The other is 36. The southern extremity of this sea is called the archipelago of Chanes.

Islands.] There are 82 islands in the archipelago of Chiloe. Of these 32 are inhabited by Indians or Spaniards. The largest is Chiloe. It is 180 miles in length, from N. to S. Its greatest breadth is 60 miles. Like the other islands it is mountainous, covered with almost impenetrable thickets, and liable to almost incessant rains, except during the southern autumn. The timber found on it is excellent for ship building.

The island of Mocha, in lat. 39° S. is handsome and fertile, and about 70 miles in circumference. The Spaniards have deserted it.

The islands of Juan Fernandez are in lat. 33 S. and between lon. 83 and 84 W. They are 2 in number. The easternmost, called Terra, is 12 miles long and 3 broad, and is 330 miles W. of the coast of Chili. It is mountainous, and produces the sandal wood, the yellow wood, and the *chonta*, a species of palm. It contains an astonishing number of goats, the descendants of those carried thither by its discoverer, Juan Fernandez. The Spaniards, in 1750, made a permanent establishment on the southwestern coast, at a port which they called Juan Fernandez. The other island, called Massa Fuera, is 3 miles in length, and 400 miles W. of Chili. It is a high, steep mountain, without a harbor, and without an inhabitant. It is full of beautiful trees and streams of good water. The coasts of both these islands abound in fish of an excellent quality.

Mountains and Volcanoes.] That part of the Andes which appertains to Chili is about 140 miles in breadth. It consists of a number of mountains, all of a prodigious height, and disposed in parallel ranges. The highest summits are the Manfios, in lat. 28 45, the Tupungato, in 33 24, the Descabezado, in 35, the Blanquillo, in 35 4, the Longavi, in 35 30, the Chillon, in 36, and the Cocabado in 43. Naturalists assert that these mountains are more than 20,000 feet above the level of the ocean.

There are 14 volcanoes in Chili, which are in a constant state of eruption, and a still greater number that discharge smoke only at intervals. They all lie nearly in the middle of the Andes from E. to W. The greatest eruption ever known in Chili, was that of the volcano of Peteroa, which lies about 80 miles S. E. of St. Jago. It happened on the 3d of December, 1760. The volcano formed for

itself a new crater, and a neighboring mountain was rent asunder for many miles in extent. The explosion accompanying it was heard through a very great extent of country. The lava and ashes filled the neighboring vallies and occasioned a rise in the Tingerica, which continued for many days. The Lontuc, a considerable river, was so much impeded in its course that its waters overflowed the neighboring plains, and formed a lake which still exists.

There are only two volcanoes in the whole of the country, not included in the Andes; an inconsiderable one at the mouth of the Rapel, in lat. 34, which is intermittent; and the great volcano of Villarica, in lat. 39 40, which is in a constant state of eruption. This mountain is entirely isolated, is 16 miles in circumference, and may be seen at the distance of 170 miles.

Earthquakes.] Three or four earthquakes occur in Chili annually. They are, however, slight, and little notice is taken of them. Between the years 1520 and 1752, only 5 great earthquakes have occurred in Chili. That on the 15th of March, 1657, destroyed a great part of the capital; that on the 18th of June, 1730, drove the sea against the city of Conception and overthrew its walls; and that on the 26th of May, 1751, completely destroyed that city, which was again inundated by the sea, and levelled with the ground all the fortresses and villages lying between lat. 34 and 40 S. The shocks continued at intervals more than a month. Not an individual human life, however, was lost on this occasion, except seven invalids, who were drowned in Conception. Were it not for its volcanoes, Chili would, in all probability, be rendered uninhabitable by the number and violence of its earthquakes.

Botany.] Chili is unusually rich in the variety and the vigor of its vegetation. The plains, the vallies, and the mountains are covered with beautiful trees, many of which scarcely ever lose their verdure, and each season produces vegetables suited to the climate in the greatest perfection. It contains about 3000 plants, which are not known in Europe, as well as many which are common to both. Mallows, trefoil, plantain, endive, mint, nettles, lupins, love apples, pimento, celery, cresses, mustard, fennel, the sorrel, the banana, jalap, and mechoacan, grow there naturally; as do maize, of which there are eight varieties; a species of rye, called *magu*, and of barley called *tuca*; beans, of which there are 14 kinds; the sweet potato; the gourd, of which there are 26 varieties; the Chili strawberry, which grows to the size of a hen's egg; the *madi*, an excellent substitute for the olive; the sugar cane; the pine apple; the cotton tree; the *relbun*, a species of madder, which yields a dye of a beautiful red; the *contra yerba*, a species of agrimony, which furnishes a yellow; the *panke*, whose root yields a fine black; the *culle*, a species of sorrel, from which a violet dye is obtained; nearly two hundred valuable medicinal plants; many varieties of reeds and rushes; and many more of climbing plants and flowers.

There are probably more than 100 indigenous shrubs in this country. Among these are the *deu*, the *thilco*, the *uthico*, the *tara*, and the *mayu*, which serve to dye black; the *colliguay*, whose wood when burnt exhales a very agreeable smell, like roses; the *thura*.

ria, which furnishes an incense not inferior to that of Arabia ; the *puma*, whose trunk is used for cork throughout Chili ; two kinds of *kali*, which are found on the shore ; two or three species of the Indian fig, whose fruit is very fine and large ; seven species of the myrtle, all estimable for their beauty and fragrance ; and a great number from time immemorial employed as medicines by the physicians of the country. Among these is the *cullen*, a powerful vermifuge ; the *guaicuru*, whose root is a specific for all kinds of wounds, as is the balsam of the *jarilla* ; the cassia *sena*, similar to that of the levant ; and the *palqui*, whose expressed juice is the best known remedy for inflammatory fevers.

The forests of Chili are known to contain 97 varieties of trees, of which only 13 shed their leaves. The white and red cedar, the cypress, the pine, and the *pellinos*, a species of oak, grow in the valleys of the Andes. The red cedar, in the archipelago of Chiloe, grows so large, that a single tree will frequently furnish from six to eight hundred boards of twenty feet in length. In the midland and maritime districts are found the willow ; the *molle*, whose berries yield an agreeable red wine ; the Peruvian cherry ; the wild orange ; the *floripondia*, which bears a white flower, 10 inches in length, and three in breadth, of a very powerful ambery fragrance ; the white cinnamon ; the *carob* tree ; the *maqui*, a species of cornel ; the *luma*, a species of myrtle, whose wood is the best of any known for the use of coachmakers, and whose berries furnish a valuable medicinal wine ; the mulberry ; the tamarind ; the *quiltai*, whose bark is an excellent substitute for soap ; the cocoanut ; the *pehuen*, or *pine of Araucania*, which bears a fruit of the size of a man's head, in its taste resembling the chesnut ; and the *lucuma*, whose fruit resembles the peach.

The pulse, flowers, garden herbs, vines, and fruit trees of Europe flourish as well in Chili, as in their native countries.

There are many varieties of melons of an excellent flavor, which continue from December to May. There are seven species of water melons. The vine produces wonderfully. The wine made on the banks of the *Itata*, called Conception wine, is not inferior to the best wines of Europe. The muscadel of Chili is said, by Ulloa, to surpass the best muscadel of Spain. In the southern provinces are forests of apple and quince trees from 3 to 4 leagues in extent. Pears, cherries, and peaches bear twice a year. The fruit of these last often weigh more than 16 ounces, and have an unusually fine flavor. Oranges, lemons, and citrons grow every where in the open fields. The olive grows very well particularly in the vicinity of St. Jago. European wheat in its several varieties, rye, barley, hemp, and flax, and every other species of grain, find in Chili a happy soil and a friendly climate.

Zoology.] The indigenous quadrupeds of Chili are not so numerous in their varieties, as those of the other S. American provinces. There are but 38 species. The *pagi*, (the Chilian lion,) called also the *puma* in Peru, resembles the lion in its shape, and roaring, but is wholly destitute of a mane. Its length is 5 feet ;

its height twenty six and a half inches. Its color is a grayish ash, spotted with yellow. The color under the belly is white. The *guigna* of a fawn color, and the *colocolo* of a white, spotted with black and yellow, are two species of the wild cat, somewhat larger than the domestic cat, which inhabit the forests. There are three species of the camel, resembling the camel of the old world in shape, internal conformation, dispositions, and mode of living ; but inferior in size. The first of these, the *vicuña*, is of the size of the goat, covered with a highly valued wool, of the color of dried roses. The *chilihueque*, or Araucanian camel, has a wool of various colors, white, brown, black, and gray. Its length is six feet : its height four. These were the only beasts of burden of the ancient Chilians. The *guanaco* is still larger, and is sometimes about the size of a horse. It is covered with reddish hair on the back, and with whitish under the belly.

The *guemue*, in its appearance, resembles both the horse and the ass. Its hoofs are cloven. The porcupine, found in the northern districts ; the *culpeu*, a large brown animal, between the dog and the fox, distinguished for its curiosity and folly ; the *cuja* ; a (black ferret ;) the *quiqui* ; (a brown weasel ;) the *chingue* ; (the North-American polecat ;) are all cloven footed and carnivorous.

Chili has three kinds of foxes, the *gusu* or common fox, the *chilla* or field fox, the *payne-gusu* or blue fox ; all of the same size as the fox of Europe. It has also the hare, the otter, and the mouse. The hog, called by the inhabitants the *chancu*, and at least two species of dogs are natives of the country.

The house rat was brought to Chili from Spain. The horse, the ass, cattle, the sheep, the goat, the dog, the cat, and the mouse of Europe, have multiplied exceedingly in this country, and have increased in size.

The Chilian horses are excellent. They are kept in the field throughout the year, and are uncommonly capable of enduring fatigue. They are divided into three kinds, the trotters, the pacers, and the parade horses, which never go out of a foot pace, and sell in Peru for from 1 to 500 crowns. The other kinds, in consequence of their numbers, are remarkably cheap.

The ass has run wild in Chili, and, with the mule, is much taller and stronger than the same animals in Europe.

The cattle of the Andes are larger than those in the maritime districts. Some farmers keep 12,000 head. The beef is salted and dried, and, with the tallow is sent to Peru. The cheese is not inferior to the best cheese of Lodi. The common price of cattle in the interior is 2 dollars.

The sheep breed twice a year, and yield annually from 10 to 15 lbs. of wool, as beautiful as that of the best Spanish sheep. Goats live in the mountains, and are valued principally for their skins, which are manufactured into morocco and sent to Peru.

There are two species of bats ; the house bat, and the piguchen or mountain bat, of a cinnamon color. Neither of them are vampires.

The amphibious quadrupeds of Chili are the *lame*, or sea-ciephant, 15 feet in circumference, and 22 feet in length; the sealion, covered with long yellowish hair; the *urigne*, resembling the common seal, 6 or 8 feet in length, and of various colors; the *seahog*; the *seacat*; the *coyhu*, a water rat of the size of the otter; and the *guillino*, a species of beaver, distinguished for the fineness of its fur. The two last inhabit the fresh waters.

The birds of Chili are far more numerous. Those that inhabit the land alone amount to 135 species. The number of those of the aquatic fowls is much greater.

Many are merely varieties of those in Europe.

There are 6 species of geese, 16 of ducks, 2 of turtle-doves, 3 of partridges, 4 of the woodpecker, 5 of the heron, and 2 of the eagle. The varieties of the diver, the plover, the kite, the falcon, the blackbird, the pigeon, the crow, the grouse, the curlew, the wigeon, and the parrot, is not known. The swan and the domestic fowl are like those of Europe.

Of the other birds of Chili the most remarkable are the penguin; the flamingo, distinguished for its size, and the splendor of its plumage; the *thenca* or mockingbird; the *cheuque* or ostrich, about 6 feet in height; the *pequen*, a species of owl; and the *condor*, the largest bird than can sustain itself in the air. Its wings, when extended, measure 16 feet from one extremity to the other.

The harbors and rivers of Chili swarm with fish. Seventy six kinds are esculent. Two kinds of whales are very common on its shores. One of these animals, driven on shore in the Archipelago of Chones, measured 96 feet in length.

The cod is as numerous on the coast of Juan Fernandez, as on the banks of Newfoundland. Oysters, crabs, lobsters, and crawfish are very abundant and remarkably fine.

The reptiles of Chili are two species of water turtles, two of frogs, two of toads, two of lizards, and one kind of serpent. None of them are venomous.

The insects of Chili are very numerous. There are many varieties of the bee, the caterpillar, the butterfly, the ant, the water-fly, and the glowworm. There is but one of the grasshopper, which is six inches in length, and not frequent; one of the spider, the body of which is as large as a hen's egg, but its bite is not poisonous; and two of the scorpion, which also are said to be harmless. The *chrysomela*, a little larger than the house fly, is of a golden color. The country people string them together for necklaces. Mosquitoes, stinging flies, gnats, and wasps are not known. The bedbug was unknown, till about the year 1730, and is still unknown in the southern provinces. It was brought from Europe.

Minerulogy.] Countries rich in the productions of the vegetable kingdom rarely abound in minerals. Chili, however, is a remarkable exception.

Gold is the most abundant metal, and is found in the sands of the plains, in the sands of the brooks and rivers, and to a greater or less degree in almost every mountain and hill. The mines of Copiapo,

Guase, Coquimbo, Petorca, Ligua, Tiltil, Putaendo, and Caen, have been wrought ever since the conquest, have yielded a great annual product, and, with those of Albue, Chibato, and Huilli-Patagua, are the most important in Chili.

The mines of silver in Chili are the most productive ever wrought. The mineral of those discovered in 1811, in the province of Guasco, yield a most extraordinary product of silver compared with that of Potosi; in point of purity it is as 40 to 14. It is not ascertained, whether these rich mines extend to any great depth. The annual product of gold and silver just previous to the revolution, is supposed to have amounted to about three millions annually. All the silver mines are found in the highest and coldest parts of the Andes, and, on this account, only 3 or 4 are now worked.

Most of the rich copper mines lie N. of the 36th degree of latitude. They are found on the plains as well as on the mountains, and are so abundant that none are wrought but such as yield at least half of the weight of the ore in refined copper. More than 1000 mines were worked in 1787, between the cities of Copiapo and Coquimbo. The mine of Curico, in lat. 34 30 is equally rich, and the richest now wrought in Chili. The copper of Coquimbo is esteemed the best in the world, and contains, a small portion of gold. The French formerly imported this copper through Spain, and extracted the gold from it. The copper mines in the district of Guasco produce annually about 20 000 quintals. The copper mines of Coquimbo produced during the year ending May 1st 1818, 41,000 quintals. The annual product of copper and tin in Chili may be valued at \$500,000. In the hills of Huilquilemu, immediately N. of Araucania, are mines of native brass, of a fine yellow color, and equally malleable with the best artificial brass. More than 120,000 quintals of copper were annually shipped to Spain, and at least 30,000 quintals to Peru, beside a large quantity sent to Buenos Ayres by land, and a still larger quantity made use of in Chili, in the cannon founderies, and for domestic purposes.

Notwithstanding the assertion of De Pauw, iron is very abundant in Chili. Copiapo, Coquimbo, Aconcagua, and Huilquilemu are rich in mines of iron, of the very best quality. Black sand, also, is found in great quantities on the banks of the rivers and brooks, as well as on the sea shore.

The mines of lead are numerous and rich, but almost entirely neglected.

Quicksilver is very abundant. The two richest mines are in Copiapo and Coquimbo. This metal is a royal monopoly.

Antimony is found in considerable quantities.

Pyrites of almost every description are scattered over the whole country. Forty leagues S. E. of the harbor of Copiapo are mines of sulphur so pure as to need no refining. It is, also, found in almost every valley of the Andes. White and red naptha, petroleum, asphaltos, and two kinds of mineral pitch, are found in many places on the mountains. Jet is very plentiful in Araucania, and pitcoal near the city of Concepcion, as well as in various other parts of Chili. Ambergris and amber are not unfrequent on the shores.

Fossil salt is found in great quantities in the Andes of Coquimbo and Copiapo. In a valley of the Andes, in lat. 34 40, lie the salt springs of Pehuenches. They are 11 in number. The water, as it overflows, becomes crystallized into pure salt, as white as snow. The valley is 15 miles in circumference, and is covered to the depth of 6 feet, with a crust of salt, which the inhabitants use for all domestic purposes. Most of the midland districts are supplied from this source. The maritime districts are supplied with sea salt, which is manufactured in great quantities on the shores.

Sal ammoniac, saltpetre, and alum are abundant.

Slate, talc, asbestos, and mica; limestone, marble, calcareous spars, and gypsum; the whetstone, the grindstone, the freestone, flint, quartz, rock crystal, jasper, the amethyst, the turquoise, porphyry, and granite are among the common stones of Chili. The topaz and the emerald have been found there.

Mineral Waters.] The most celebrated mineral springs are those of Peldehues and Cauquenes. The first is not far from St. Jago. It consists of two springs, one hot, the other cold. The hot spring is clear, inodorous, oily to the touch, and contains soda and a little fixed air. The cold spring contains iron, glauber's salt, and a yellowish ochre. The spring of Cauquenes is near the source of the Caciapoal, and is the resort of great numbers of the sick and the fashionable during the summer. Mineral waters are very common in every part of the country.

PATAGONIA.

EXTENT, BOUNDARIES, RIVERS, NATIVE TRIBES.

Extent.] CAPE LOBOS, in lat. 37 30 S. is the most northern limit on the Atlantic. On the Pacific, Patagonia includes all the continent S. of fort Maullin in lat. 41 43. On the E. of the Andes of Chili, however it extends northward, as far as the sources of the Colorado and Negro, near lat. 35° S. Its greatest length, from N. to S. is not less than 1300 miles. On the Atlantic, it has about 1100 miles of sea coast, and on the Pacific, 800. The breadth, from cape Lobos to the Andes, is 700 miles; but the average breadth does not exceed 450. Almost the whole of the immense plains, called the *Pampas*, described under the article Buenos Ayres, are still in possession of the natives; as are all the Andes S. of Cuyo or Cujo.

Boundaries.] On the N. lies Buenos Ayres; on the E. the Atlantic; on the S. the straits of Magellan; and on the W. the Pacific and Araucania.

Rivers.] The large rivers of this country all run from the Andes eastward. The first of any considerable size, S. of the *Saladillo*, already mentioned, as a river of Buenos Ayres, is the *Hueyque Lcu-vu*, an Indian name, signifying the *river of willows*. The Spaniards

have improperly given the name of *Rio de los Sauces*, or *river of willows*, to the *Rio Negro*, farther south.

The *Hexyque* is formed in the plains between the mountains of Achala and Yacanto. It is of considerable size, is in general shallow and fordable, but is sometimes greatly swelled by the floods. Its course is S. and S. E. through the Pampas to the ocean; into which it falls by two openings.

The *Colorado* is the largest river, except the *Negro*, in Patagonia. It is formed by numerous streams, which issue from the E. side of the Andes, almost as far N. as the volcano of Chuapa. Taking a S. direction, it passes with a deep and rapid current, within about 30 miles of San Juan de Frontera. After receiving a small river, which washes that town, it is swallowed up in the lakes of Guanacache; which also receive the *Tanuya*, a pretty large river from the S.; a branch of which, the *Portillio*, runs by Mendoza. The country S. E. of these lakes is an extensive marsh, in which the streams are for a while lost. But they break out, a few leagues distant, in an immense number of rivulets; which, uniting, form a large river, called by the Picunches, *Huaranca Leuvre*, or *a thousand rivers*; by the Pehuenches, *Cum Leuvre*, or *Red river*; and by the Spaniards, *Colorado*. Its course is now S. E. and continues through the marshy country; which is not less than 170 miles in breadth, and is completely overflowed in the rainy season. It preserves this course till it approaches within 30 or 40 miles of the *Negro*, when it turns due E. for 150 miles. It then turns again to the S. E. and continues that direction to the sea; falling into Bahia Anegada, which is very shallow, and full of sandbanks. In this bay a Spanish vessel was lost early in the last century. The crew saved themselves in their boats; and proceeding in them up the river, at length arrived at Mendoza.

Rio Negro the *Cusu Leuvre*, or *Black river* of the Indians, issues also from the eastern side of the Cordillera, N. of the latitude of Valdivia. Its course is first S. then E. and N. of E. and afterwards S. E. to the ocean. The *Oglen*, its first considerable tributary from the N. is the outlet of *Huechun*, *Lavguen*, or *lake of the boundary*, a lake 36 miles long and nearly circular. The *Sanquel*, its largest tributary on the same side, issues from the Andes, and receiving the *Lolgan*, runs about 300 miles in a S. E. direction, and joins the *Negro* in a broad and rapid stream. On the S. the *Negro* receives the *Lime Leuvre* and the *Machi Leuvre*. The *Lime*, called by the Spaniards the *Desaguedaro* or *drain of Nahuelthuapi*, is merely the outlet of the waters of that lake. The lake itself is formed by the waters of the Cordillera, and is near 100 miles in length. It takes its name from an island enclosed in it, called the *island of tigers*; *Nahuel* denoting a tiger, and *Huaihi* an island. It is situated in a great plain, surrounded by mountains. The *Lime*, runs from it northward about 90 miles, through vales and marshes, till it enters the *Negro* a little below the *Oglen*. The *Machi* comes from the country of the *Huilliches*, and runs nearly due north to the *Negro*, emptying at no great distance below the *Lime*. Hence the *Negro* bends its course to the E. making a small bend northward, where it

approaches the Colorado. Thence it runs S. E. to the bay of St. Matthew. Some distance before it terminates in the sea, the river makes a large sweep, forming a peninsula 18 miles in diameter, the isthmus of which is only 3 miles across. This peninsula is called *Tchuel malal* or *the enclosure of the Tchuelhets*. The Negro, with its branches, serves as a drain to the Andes, for upwards of 600 miles. It is a broad, deep, and rapid river, liable to sudden and violent inundations.

Of the rivers farther S. we have no accurate accounts.

Native Tribes.] The aborigines distinguish the various tribes by two denominations, **MOLUCHES**, or *warriors*; and **PUELCHES**, or *eastern people*.

The **MOLUCHES** occupy the country W. of the Andes, and S. of the bay of Chiloé; the Andes themselves; and the country bordering on them eastward from the province of Cuyo, to the straits of Magellan. They compose three distinct tribes. The *Picunches*, a name derived from *picun*, north, and *che*, men or people, border northward on Cuyo. The *Pehuenches*, from *pehuen*, a pine tree, lie immediately S. of them. These two tribes were formerly very numerous; but are now scarcely able to muster 4000 fighting men. Wars, and the ravages of the small pox, have tended to the diminution of their numbers; but the Spanish brandy, and their own *chica*, have been far more destructive. The *Huilliches*, or southern *Moluches*, reach from the latitude of Valdivia to the end of the continent, occupying the Andes and the country W. of them. They are very numerous and powerful.

The **PUELCHES** reach from the territories of the Moluches to the Atlantic, and constitute four tribes. Those to the N. are called *Taluhets*; to the W. and S. of these are the *Diuihets*. The Spaniards call both of these the *Pampas* because they claim the immense plains of that name. They are of a roving disposition, and repeatedly attack and harass the Spanish settlements, as well as the travellers who pass from Chili to Buenos Ayres over the plains which they inhabit. They hunt both the wild horses and cattle for food, and are in general a tall and stout race of people. It was in a treaty with these tribes, that cape Lobos was made the southern boundary of the Spaniards on the coast. The *Chechehets* are to the S. E. of the Diuihets; and S. of these last are the *Tchuelhets*. The Chechehets are not numerous, having been chiefly destroyed by the small pox.

“The Tchuelhets are the nation known in Europe by the appellation of Patagons; and are split into many subdivisions. A principal tribe have a town called Huechin, on the banks of the Negro, the caciques of which have great influence, if not commensurate authority, over almost all the Chechehets and Tchuelhets, and who, when they declare war, are also joined by the Huilliches, and by those Pehuenches, who live most to the south. The Tchuelhets are a restless and roving people, whom neither extreme old age, nor blindness nor disease, prevent from indulging in their wandering inclinations. They are very strong, well made, and not so tawny as the other Indians. They are courteous, obliging, and goodnatured,

but very inconstant. They are warlike and intrepid, and the most numerous of all the Indian nations in these parts. They are the enemies of the Moluches, and very much feared by them. They speak a different language from the other Puelches and the Moluches. As to their stature, they are a large race, and several of them are seven feet and a half in height, but these, it is asserted, are not a distinct race, as others in the same family do not exceed six feet.

We cannot, without a charge of unreasonable scepticism, deny all credence to the accounts that have been transmitted to us, of a race of men of extraordinary stature in this portion of the globe. Inscrutable as are the ways of Providence, and limited as is the progress hitherto made in the natural philosophy of the globe we inhabit, no bounds can be assigned to the endless variety of phenomena, which successively appear or are discovered. The man, who can assign a reason why an Irish giant, or a Polish dwarf, should be born amidst nations of ordinary stature, will have solved every problem, as to the existence either of gigantic Patagonians or of pigny Esquimaux. Undoubtedly, however, the most explicit and unexceptionable evidence is requisite, in order to establish a fact repugnant to those general principles and laws, which seem to affect the human frame in every other instance. But by an impartial revision of the various authorities, it appears, as an established fact, that the usual stature of one or more tribes of Indians is from six and a half to seven and a half feet. A majority of the Indian nations of S. America are of a large size, and extraordinary stature, increasing in bulk and height towards the south; and the Tehuelhets, none of whom are under 6 feet, and some approaching to 8, a wandering nation, inhabiting an extensive country, and well provided with horses, may be looked on as the Patagonians of the Straits of Magellan, incidental visitors, but not permanent inhabitants, of the shores both to the S. and to the E. The comparative safety and facility of the passage round Cape Horn, has prevented any recent navigation of the Straits, and the accounts of the early navigators must stand or fall by their own intrinsic merits, till the interior of the country is more fully explored, or till some object of commercial attraction, or of political importance, arises to induce navigators to frequent the Straits of Magellan again. In the meantime the intermediate system, to which a preference has been given above, acquires confirmation from the most recent visit to those regions of which any account has been made public, namely, that of a Spanish vessel, despatched by the court of Spain, to survey the Straits in 1785 and 1786.*

At their first interview with the Patagonians, one of them, who called himself Francisco Xavier, who had had intercourse with the Spanish colonists of Rio de la Plata, and spoke a little Spanish, was measured, and found to be 6 feet and $11\frac{1}{2}$ inches in height. The tribe they then met with appeared to consist of between 4 and 500 men and children, for they saw no women. They were all on

* *Relacion del ultimo viaje al estrecho de Magallanes de la fregata de S. M. Santa Maria dela Cubeza. Madrid, 1788.*

horseback and had many dogs. The indifference with which they left their horses, their arms, and their little effects, unguarded, or in the care of each other, was considered as a proof of the good faith that existed amongst themselves; and though it was evident that their communication with the Spanish settlements was neither difficult nor unfrequent, they did not seem to have acquired the bad habits which an intercourse with European colonists too often gives rise to amongst savages. Xavier had a poncho, which was conjectured to be of Spanish manufacture, with the addition of a cloak of guanaco-skins, sewn together, and exactly similar to those that are brought for sale by the Indians to Buenos Ayres. He had also a cutlass or machete, inscribed in Spanish *por el rey Carlos III.* Several of the others had the noose, or lace and balls,* weapons well known in that province. They are described as extremely friendly and familiar, eating, drinking, and smoking tobacco, with their visitors with the greatest cordiality.

They met with another body of Patagonians, all also mounted on horses and followed by many dogs, and amongst whom there were several women; but they also met, towards the centre of the Straits, and particularly at Port Famine, with those miserable, shivering, and naked savages, who have been described by the name of Pecherais, from a word in their language which they are constantly repeating, and who do not at all exceed the common stature of man. The moral and physical differences between these two races of men is striking, but need not here form any particular object of comparison: the Pecherais being far distant from the province of Buenos Ayres, whilst on the other hand, the Patagonians, from their migratory disposition, and abundance of horses, are occasional visitors of the vicinity of Buenos Ayres, of the Chilian frontier, and of the Straits of Magellan.

From the actual and exact measurement of the Spanish officers of the above mentioned expedition, the tallest of the Patagonians they met with did not exceed 7 feet and 1 inch and $\frac{1}{2}$, but their general height was from 6 $\frac{1}{2}$ to 7 feet. All of them were robust and muscular; of no disagreeable countenance, although their heads were rather large in proportion, their eyes were lively, and they had teeth extremely white. A few of them were observed to have beards but they were neither large nor bushy. Upon the whole the appearance, dress, and character of these Patagonians is described as very similar to the Tehuelhets of the Negro; so much so as to leave no doubt of their being the same people.†

* The balls, which are of heavy stone, are connected by a leathern thong of suitable length; they are three in number, two of them three inches, and the other two inches in diameter. The hunter takes the small ball in his right hand, and swings the other two round his head till he has taken a proper aim, and they have acquired sufficient velocity, he then throws them at the legs of the animal he is pursuing, two of which they immediately entangle by their rotatory motion, and bind them close together, after which the capture is easy; but the danger of laming the animal is great, and they are seldom therefore used to catch horses.

† A passage occurs in the Spanish narrative of this voyage, which indicates the establishment of some new settlements by the Spaniards in the southern part

The Moluches, as well as all the Puelches, believe in two superior principles, the one good and the other evil. The good power is called by the Moluches *Toquichen*, or governor of men ; by the Taluhets and Diuihets, *Soychu*, signifying the being who presides in the land of strong drink ; and the Tehuelhets call him *Guayavacunner*, or the lord of the dead. But this power or principal is subdivided into a multiplicity of deities, each of whom is supposed to preside over one particular cast or family of Indians, of whom he is supposed to have been the creator. They imagine that each of them has a separate habitation, in vast caverns under the earth, beneath some lake, hill, or forest, and that when an Indian dies, his soul goes to live with the deity of his particular family, there to enjoy the happiness of being eternally drunk. They believe that their good deities made the world, and that they first created the Indians in their caves, gave them the lance, the bow and arrows, to fight and hunt with, and then turned them out to shift for themselves. They imagine that the deities of the Spaniards did the same by them, but that instead of lances, bows, &c. they gave them guns and swords. They suppose that when the beasts, birds, and lesser animals were created, those of the more nimble kind came immediately out of their caves, but that the bulls and cows being the last, the Indians were so frightened at the sight of their horns, that they stopped up the entrance of their caves with great stones ; which is the reason they assign why they had no horned cattle in their country, till the Spaniards brought them over, who more wisely, had let them come out of the caves.

From the evil principal it is, they say, that the great number of demons, which they suppose are constantly wandering about the earth, proceed. To these they attribute every evil that befalls either man or beast. Each of their wizards is supposed to have two of these demons in constant attendance, who enable them to foretell future events, to discover what is passing at a great distance, and to cure the sick by combating or appeasing the other demons, who torment them. They believe that the souls of their wizards after death became demons. Their worship is entirely directed to the evil being, except in some particular ceremonies made use of in reverence to the dead.

The profession of their wizards is very dangerous, notwithstanding the respect that is sometimes paid to them : for it often happens, when an Indian chief dies, that some of the wizards are killed, especially if they had any dispute with the deceased just before his death. In cases also of epidemic disorders, when great numbers are carried off, the wizards often suffer. On account of the smallpox, which had almost entirely destroyed the Chechehets, the cacique Cangapol ordered all the wizards to be put to death, to try if by that means the distemper, which was attributed to the

of the continent, with which we are wholly unacquainted. From various circumstances, a constant intercourse was thought to exist between these Indians and the Spanish colonies of Buenos Ayres and Chili : and more particularly with those lately formed on the coast of Patagonia.

wizards and their demons, would cease. The wizards are of both sexes, but all go dressed in female apparel. They are generally chosen to this office when they are children, and a preference is always shown to such as discover an effeminate disposition. They are clothed very early in the dress of, and presented with the drum and rattles belonging to the profession they are to follow.

The burials of their dead, and the superstitious reverence paid to their memory, are attended with great ceremony. When an Indian dies, a woman is immediately chosen to make a skeleton of his body; the entrails and flesh are burned, and the bones are buried till the remaining flesh is wholly consumed or till they are removed (which must be within a year after the interment, but is sometimes within 2 months) to the proper burial place of their ancestors. This custom is strictly observed by the Moluches, Taluhets, and Diuihets; but the Chechehets and Tehuelhets, or Patagonians, place the bones on high, upon canes and twigs woven together, to dry and whiten in the sun and rain. During the time that the ceremony of making the skeleton lasts, some of the Indians covered with long mantles of skin, and their faces blackened with soot, walk round the tent with long poles or lances singing in a mournful tone of voice, and striking the ground to frighten away the demons; whilst others go to visit and console the widow or widows and other relations of the deceased. The horses of the dead are also immediately killed, that they may have the means of riding in the *Alhue Mapu*, or country of the dead; a few only being reserved to grace the last funeral pomp, and to carry the relics to their proper sepulchres.

Widows are obliged to mourn and fast for a whole year after the death of their husbands. This consists in keeping themselves close shut up in their tents, without having communication with any one, or stirring out but for the common necessities of life, in not washing their faces or hands; in being blackened with soot; and in abstaining from the flesh of horses, horned cattle, ostriches, and guanacoës. They are forbidden to marry again during the year of mourning; and if a widow be discovered to have had any connexion with a man during that time, the relations of her dead husband may kill them both, unless it appears that she has been violated. But the men are not obliged to any such mourning on the death of their wives.

The Moluches, Taluhets, and Diuihets, bury their dead in large square pits about a fathom deep. The bones are put together, and each tied in its proper place; the skeleton is clothed in the best robes that can be got, and adorned with beads, feathers, &c. all of which they cleanse or change once a year. They are placed in a row, sitting with the sword, lance, bow and arrows, bows, and whatever else the deceased had whilst alive. Their pits are covered over with trunks of trees and canes or twigs woven together, upon which earth is put. An old woman is chosen out of each petty community to take care of these graves, and is held in great veneration on account of her employment. Her office is to open

these dreary habitations every year, and to clothe and clean the skeletons. These burial places are, in general, not far from their habitations, and around them are placed the bodies of their dead horses, raised upon their feet, and supported by stakes. But the Tehuelhets, after having dried the bones of their dead, carry them to a great distance from their habitations into the desert by the sea coast. When they are moved, they are packed up together in a hide, and placed upon one of the favorite horses of the deceased, kept alive for that purpose, and adorned with mantles, feathers, &c. The distance to which these bones are thus carried is sometimes 6 or 700 miles. The skeletons, when put together and adorned in the manner just described, are then set in order above ground, under a hut or tent erected for that purpose, with the skeletons of their dead horses placed around them.

Their marriages are made by sale, the husband buying his wife of her nearest relations. They often agree for their wives, and pay part of the price of them, when they are very young, and many years before they are marriageable. Every Indian may have as many wives as he can buy or keep, yet few have more than one, except the caciques. Widows and orphans are at their own disposal, and may accept of whom they please; the others are obliged to abide by the sale. Little or no ceremony is used in their marriages. The husband takes away his wife from her parents as his own property; and the following morning she is visited by her relations before the time of rising, when being found in bed together, the marriage is considered as concluded. But as many of these marriages are compulsive on the side of the woman, they are frequently frustrated. The contumacy of the woman sometimes tires out the patience of the man, who then turns her away, or sells her to the person on whom she has fixed her affections, but seldom beats her, or uses her ill. The women, when they have once accepted their husbands, are in general very faithful and laborious. Indeed their lives are but one continued scene of labor, and they are forced to submit to every species of drudgery. No excuse of sickness or pregnancy will relieve them from the appointed labor; and so rigidly are they obliged to perform their duty, that their husbands cannot help them on any occasion, or in the greatest distress, without incurring the highest ignominy. Although their marriages are at will, yet, when once the parties are agreed, and have children, they seldom forsake each other, even in extreme age. The husband protects his wife from all injuries, and always takes her part, even if she is in the wrong, which occasions frequent quarrels and bloodshed; but this partiality does not prevent him from reprimanding her in private for engaging him in these disputes. He seldom beats her; and if he catches her in any criminal intercourse, he lays all the blame on the gallant, whom he corrects with great severity, unless he atones for the injury by some valuable present.

The Moluches maintain some flocks of sheep for their wool, and sow a small quantity of corn; but the Puelches depend entirely on

the chase, for which purpose they keep great numbers of dogs. The dress of these Indians is remarkable, and mostly alike. The men wear their hair tied up behind, and bound many times about the head with a long fillet of dyed woollen stuff curiously wrought. They wear mantles of skins sewed together, sometimes of the skins of young colts, which are the least esteemed; sometimes of otter or other skins; mostly, however, of guanaco skins, which are in great estimation on account of the warmth and fineness of the wool, and their long duration; but those which are in the highest estimation of all are made with the skins of small foxes, which are exceedingly soft and beautiful; they are of a mottled gray color, but are not so durable as those of the guanaco. They also make or weave (the Tehuelhets and Chechehets excepted) fine mantles of woollen yarn, beautifully dyed with many colors, which reach from the shoulders to the calf of the leg. They have another of the same kind round the waist, and, besides these, a small three cornered leather apron. They likewise make mantles of red stuffs, which they buy of the Spaniards, of whom they also purchase hats, which they are fond of wearing, especially on horseback. They adorn themselves with sky colored beads round their necks and wrists. They also paint their faces, sometimes red and sometimes black. When on horseback they use the poncho, which they adorn with a great variety of figures. Their defensive arms consist of a helmet, made like a broad brimmed hat, of a bull's hide sewed double, and of a wide tunic, shaped and put on like a shirt, with narrow, short sleeves, made of 3 or 4 folds of the anta's skin: it is very heavy, and strong enough to resist either arrows or lances. On foot they sometimes use a large, unwieldy, square target of bull's hide. Their offensive arms are a short bow and arrows pointed with bone, and a lance 4 or 5 yards in length, pointed with iron, and made of a solid cane that grows near the cordilleras, with many joints about 4 or 5 inches from one another. They have also swords when they can get them from the Spaniards; but they are in general very scarce. The balls, mentioned before, form a weapon which they manage with admirable dexterity. They are generally made of the heaviest stones they can get, made round by friction. They are swung with unerring aim, and thrown with such dexterity as to fasten a man to his horse, and to entangle the feet of any animal.

The women wear nothing on the head, but have their long hair plated in two large tresses, which hang down on each side. They have ear rings or pendants of square, brass plates, and strings of sky blue beads round their necks, arms, and ancles. They have the same kind of mantle as the men, which they fasten before with a brass skewer or pin. They have also a short apron tied about the middle under the mantle, and reaches a little below the knee. This is woven of dyed yarn, and striped longitudinally with different colors. When they ride, they use a straw hat, of a broad, low, conical figure. Both sexes wear boots or stockings made of the skins of horses legs, which, when flayed, are dried, softened with

grease, made pliant by wringing, and put on without either shaping or sewing.”*

AMERICAN ISLANDS.

IN the progress of our work we have had occasion to give a particular account of almost all the islands of any consequence connected with the Western Continent. Spitzbergen, the Fox, and Aleutian islands have been described in the geography of Russian America; Iceland under that of Danish America; Newfoundland, Cape Breton, St. John's, Anticosti, and several small islands under that of British North-America; the West-Indies under a separate head; and Juan Fernandez and the islands in the archipelago of Chiloe under that of Chili. The Bermudas, the Falkland islands, Terra del Fuego, and Southern Georgia remain to be described.

BERMUDAS, OR SOMERS' ISLANDS.

These are a cluster of small and rocky islands, forming the figure of a shepherd's crook, about 400 in number. They lie in the Atlantic, in lat. 32 20 N. and lon. 64 30 W. about 200 leagues E. of Carolina. The great body of them are mere islets and rocks, of too little consequence to have received a name. *Bermuda*, the largest, resembles a hook, the great sound opening to the N. It is 40 miles long and 2 broad. East of this lies *St. George's*, and contiguous to this *St. David's*. Another is called *Somerset*. Only these four have received a name.

The groupe derived its first name from John Bermudas, a Spaniard, who discovered it in 1527; and their second from sir George Somers, who was shipwrecked on the rocks in his passage to Virginia, in 1609, and lived there 9 months. By a mistake in the sound of this latter name, they have often been called *Summer islands*.

By the third charter of Virginia, granted in 1612, all islands within 300 leagues of the coast were annexed to that province. The Virginia company sold them to 120 of its own members, who sent out, the same year, a colony of 60 persons, and another of 540, in 1613.

The religion is that of the church of England. There are 9 Episcopal churches, under the care of 3 clergymen, and 1 Presbyterian church. The government is vested in a governor, and a council, appointed by the crown; and in a house of assembly, chosen by the people. The number of whites, in 1624, was about 3000. Edwards states the population at 5462 whites and 4,919 blacks, total 10,381. The women are said to be handsome, and both sexes are fond of dress. The inhabitants are generally seafaring men,

* Wilcocke's History of Buenos Ayres, page 438—453.

and the negroes are expert mariners. In the American war the Bermudians fitted out 15 or 20 privateers to prey on the American commerce. The negroes are treated with kindness. The black privateersmen, who were taken prisoners during that war, when discharged, voluntarily returned to their masters. Great numbers of the inhabitants go every spring to Turk's islands to rake salt, and some of them are employed in transporting the salt to the American market. The islands are frequented by whale fishers. The houses throughout the islands are built of a soft stone, which is sawn like timber, and is much used in the West-Indies for filtering water.

ST. GEORGE'S, the capital, in the island of the same name, contains about 500 houses.

The islands contain from 12,000 to 13,000 acres of very poor land, of which 9 parts in 10 are either uncultivated or reserved in woods for a supply of timber towards building small ships, sloops, and shallops for sale, this being one principal occupation of the inhabitants. The vessels which they furnish, being built of cedar, are light, buoyant, and unexpensive. Maize and vegetables were alone cultivated, till 1785, when cotton was introduced. About 200 acres are now devoted to its culture.

TERRA DEL FUEGO.

Terra del Fuego, or the *land of fire*, is a name given to a large island, which is separated from the southern extremity of the American continent by the straits of Magellan. These straits are about 350 miles in length, from cape Virgin, in the Atlantic, to cape Desire, in the Pacific; and in some places several leagues over, and in others not half a league. They consist of two arms, one passing N. E. to the Atlantic, the other N. W. to the Pacific; and were discovered by Ferdinando Magalhaens, or Magellan, a Portuguese, in 1520. In these straits there are many safe harbors and large bays, with narrow entrances, encompassed with high mountains, sheltering them from every wind.

The face of the country in the island is represented as dreary and inhospitable. The inhabitants are said to be naturally as fair as Europeans. They are of a middle stature, have broad, flat faces, high cheek bones, and flat noses. Those on the S. side are said to be uncivilized, treacherous, and barbarous; those on the N. are simple, affable, and harmless. They cover their bodies in winter with the skins of wild animals. Their tents are made of poles, disposed in a conical form and covered with skins or the bark of trees. An island lying E. of Terra del Fuego, and called *Statenland*, is separated from it by the straits of Le Maire. It is 12 leagues in length and 5 in breadth; and is extremely rude, barren, and desolate. On this the English have a small settlement.

FALKLAND ISLANDS.

These consist of two large islands, with a great number of small ones surrounding them, and lie between lat. 51° 6' and 52° 30' S. and

between lon. 56 30 and 62 16 W. They were discovered by Davis, in 1592. In 1764, commodore Byron was despatched by the British government to take possession of them and plant a colony at a place called *Port Egmont*. They consist chiefly of mountains and bogs, have an inhospitable climate, and can never be of any value unless as a watering place for ships bound to the Pacific ocean. *Falkland's Sound* is a name given to the strait, which separates the two largest islands.

SOUTHERN GEORGIA.

This island lies in lat. 54 30 S. and lon. 37° W. and is about 100 miles long and from 3 to 15 broad. It is a dismal region, abounding in bays and harbors, and, a great part of the year, covered with ice. This island, or rather cluster of islands, was discovered by a Frenchman, and afterwards surveyed by Capt. Cook, who found here abundance of sea elephants and sea bears or fur seals. For some years after, the English visited these islands for the purpose of taking these elephants for their oil, from 3000 to 4000 tons of which they have annually procured, and at some seasons sold for 40% sterling a ton. At the same time they caught from 100,000 to 200,000 seals, whose skins sold from 1 to 2 dollars each. The Americans, chiefly from New-England, about the year 1800, perhaps a little earlier, visited these islands with 9 vessels, and the first year caught not less than 151,000 seals. This cluster of islands consists of high peaks, rising above the clouds, in the form of sugar loaves. It is barren of all vegetable productions. The rocks are composed of a kind of slate, of a bluish gray color, disposed in horizontal beds.*

GALLAPAGOS.

These lie in the Pacific ocean, between lat. 3° N. and 4° S. and between lon. 83 40 and 89 30 W. The 3 largest are Norfolk I. in the E. Albemarle I. in the W. and Wenmore I. in the N. W. They are very numerous. Only 9 are of any considerable size. Some of these are 7 or 8 leagues long and 3 or 4 broad. They are well wooded and abound in fine turtles.

* Drigg's MS.

INDEX

TO VOLUME I.

ABACO island	Page 720	Alleghany river	Page 249
Acapulco	690	mountains	256
Accawaws Indians	795	Algol star, periodic variation of	58
Acklin's island	718	Alligator swamp	256
Agamenticus mountain	325	Aloes plant	710
Agattoo isle	130	Amazonia	811
Agriculture and soil of Alabama	561	Amazon river	108
Arkansaw Territory	655	Amboy bay	422
Brazil	823	Amelia Island	555
Buenos Ayres	845	Amen's cave	490
Canada Lower	177	America	85
Canada Upper	181	extent	85
Chili	853	divisions	85
Connecticut	378	original population	85
Delaware	451	history of discoveries in	90
Domingo St.	733	population of	97
Florida	552	British	144
Georgia	544	Danish	132
Guiana	800	Russian	126
Illinois	603	North political divisions of	126
Jamaica	738	South	768
Indiana	610	American Islands	881
Iceland	139	Ammonoosuc river	317
Kentucky	595	Amoskeag fall	316
Louisiana	667	Amsterdam	798
Maine	326	Anaximander introduces geographi-	
Massachusetts	347	cal maps	11
Maryland	459	Andes mountains	122
Mexico	694	Guatemala	699
Michigan Territory	635	Andover Institution	339
Mississippi	569	Andrews St.	164
Missouri Territory	649	Andros Island	720
New-Brunswick	164	Androsoggin river	328
New-England	288, 289	Anguilla or Snake Island	747
New-Hampshire	315	Annapolis	457
New-Jersey	420	river	162
New-York	399	Anthony St. falls of	110
North-Carolina	502	Anticosti island	153
Nova-Scotia	161	Antilles, what islands properly so	
Ohio	626	called	702
Pennsylvania	438	Greater	721
Rhode Island	363	original population of	721
South-Carolina	521	Lesser	766
Tennessee	582	Antigua island	752
United States	246	Antiquities of western country	606, 619
Venezuela	787	Apalachian mountains	256
Vermont	304	Apalachicola river	255, 554
Virginia	484	Apalachy bay	554
West-Indies	707	Appomattox river	485
Alabama	555	Appoquinimink bridge	447
Alabama river	561	Apurimac river	109
Alabamah river	255	Apura river	115, 788
Albany	393	Araucanian Indians	87, 856
Albemarle sound	249	Ararat mountain	506
Albion, New	683	Araguaya river	825
Aleutian Isles	130	Ardoise hill	160
Alexandria (Lou.)	663	Arequipa	807
Alexandria (D. C.)	464	Arichat	150
Alleghany College	431	Aristagoras' map	12

Arkansaw Territory	Page 654	Barbuda island	Page 740
post	655	Barcelona	744
river	656	Barnstable bay	548
Army of Buenos Ayres	835	harbor	553
Canada Lower	172	Barrataria	220, 606
Canada Upper	182	Bartholomews St. island	743
Connecticut	370	Basseterre	750
Delaware	446	Barquisimeto	784
Georgia	537	Barroinbón river	848
Kentucky	591	Bath	523
Louisiana	662	Bayamo or St. Salvador	794
Maryland	455	Beaufort	514
Massachusetts	334	Beaumont	175
Michigan Territory	633	Behring Vitus, his discoveries	132
New-Hampshire	312	Beni river	108, 813
New-Jersey	412	Bennington	300
New-York	388	Berbice river	800
North-Carolina	494	Bermudas islands	881
Ohio	621	Berry islands	790
Pennsylvania	429	Bethlehem	436
Rhode Island	359	Beverly	543
South-Carolina	512	Bible Society American	219
Tennessee	577	Blakely	553
United States	220	Black-Warrior river	561
Venezuela	782	Big black river	570
Vermont	299	Big bone valley	599
Virginia	473	Bilboa	862
Arrowauks	796, 791	Black bear lake	101
Aruba island	768	fish of Cape Cod	533
Ascutney mountain	258	river (New-York)	401
Ashley river	524	river (Jamaica)	799
Aspotagoen highlands	160	river (South-Carolina)	594
Assumption	840	Blannerhasset island	630
Astronomy, its connexion with		Block island	565
geography	17	Blowing cave	409
Atacama desert	346	Blue Hills (New-Hampshire)	317
Athens (Ohio)	619	ridge mountains	486, 254
Athens (Georgia)	539	mountains	440, 739
Atlantic ocean	81	Boklivia	861
points of communication		Bonair island	767
between and the Pacific	118	Bonavista	143
Atmosphere as connected with as-		Borgne lake	670
tronomy	63	Boston	540
Attoo island	130	bay	546
Atwood's keys	718	Botany of Amazonia	814
Augusta (Georgia)	539	Bahamas	715
(Maine)	523	Buenos Ayres	857
Augustine St.	551	Connecticut	380
Bacon's academy	373	Florida	552
Bad river	117	Georgia	547
Bahamas	710	Granada New	776
Bahamas, banks of	713	Greenland	143
Bahama, Great island	721	Guiana	801
Baffin's bay	99, 144	Illinois	605
Ballstown springs	403	Kentucky	596
Baltimore	456	Michigan Territory	657
Banks in Connecticut	370	New-Jersey	423
Kentucky	591	New-York	403
Maine	324	North-Carolina	804
Massachusetts	334	Ohio	603
New-Hampshire	314	Pennsylvania	441
New-York	388	Peru	810
Pennsylvania	429	South-Carolina	529
United States	220	Spitzbergen	138
Vermont	302	Tennessee	585
Baptists in the United States	207	United States	268
Barbadoes island	760	Venezuela	791

Botany of Virginia	Page 486	Carolina North	Page 490
Vermont	506	Carlisle	436
Bowdoin College	392	Carolina South	507
Brainerd	577, 576	Caribes	742, 780
Brandywine creek	451	Caribbean islands	742
mills	448	sea	98, 790
Bras d'Or lake	150	Carmel mount	380
Bravo river	118, 695	Carondelet	646
Brazil	814	Carthage	773
Bridge natural in Virginia	489	Casco bay	326
Bridges of Connecticut	375	Castle island	356
Georgia	540	Catawba Indians	510
Massachusetts	345	Catawba falls	526
New-Jersey	418	river	234
New-York	395	Cattskill mountains	403
Pennsylvania	437	Cayman islands	740
Rhode Island	362	Cayenne	797
South-Carolina	517	river	800
Bristol (R. Island)	361	Cayuga river	627
Britain New	166	lake	402
original population of	166	bridge	395
British America	144	Cauca river	775
Brooklyn	394	Caura river	789
Brown university	359	Ceres, asteroid	31
Buccaneers	702	Chaleo lake	696
Buenos Ayres	838	Champlain lake	255
Burlington (Vermont)	302	Chapala lake	696
college	300	Character and manners of Brazil	817
(New-Jersey)	416	Buenos Ayres	836
Burnt lands	329	Canada	183, 172
Bushnell David, his inventions	377	Connecticut	370
Buzzard's bay	349	Cuba	723
Catawba	559	Domingo St.	731
Cahokia	602	Georgia	537
Caicos islands	717	Granada New	772
Calcasin river	670	Greenland	143
a gulf of	99	Guiana	796
mountains of	125	Iceland	136
New	682	Kentucky	591
Old	683	Louisiana	661
Camden	516	Maine	322
Campobella island	166	Maryland	455
Canada Lower	168	Massachusetts	334
original population	169	Mexico	689
Upper	179	Michigan Territory	633
Canals of Kentucky	593	New-England	291
Massachusetts	345	New-Jersey	412
New-Hampshire	314	New-York	388
North-Carolina	498	North-Carolina	495
Pennsylvania	437	Ohio	616
United States	231	Pennsylvania	430
Virginia	480	Peru	806
Canandaigua	395	Rhode Island	359
Canonniet island	365	South-Carolina	512
Canso gut of	150	Tennessee	578
Capes, definition and general ac-		United States	213
count of	80	Venezuela	782
Cape Breton island	150	Vermont	299
Cape Fear river and shoal	502, 504	Virginia	478
Hatteras	504	West Indies	704
Lookout	504	Charlestown (Massachusetts)	344
Francois or cape Henry	731	Charleston (south-Carolina)	515
Caraccas	783	(New-Hampshire)	314
Indians	779	Charles river	848
Caribes Indians	87, 795	Charles St	646
Carriaco gulf	789	Charlottetown	152
Carriacou island	766	Chatahque lake	402

Cherokees	Page 576	Commerce and manufactures of	Page 609
Chatham	353	Illinois	138
Chesapeake bay	248	Iceland	594
Cheshire academy	373	Kentucky	665
Chesterfield inlet	98	Louisiana	594
Chiapa river	699	Maine	458
Chiapa de los Indos	699	Maryland	346
Chicago river	605	Massachusetts	691
Chicapee river	348	Mexico	639, 634
Chickasaws	567	Michigan Territory	568
Chickahomminy river	485	Mississippi	314
Chillan	862	New-Hampshire	419
Chili	853	New-Jersey	396
original population	854	New-York	499
historical epochs	855	North-Carolina	159
commerce	863	Nova-Scotia	622
Chilleothe	618	Ohio	437
Chimborazo mountain	776, 192	Pennsylvania	807
Chingu river	825	Peru	362, 363
Chipewyan tribe of Indians	89	Rhode Island	517
Chipaways river	642	South-Carolina	679
Chiquitos chain of mountains	153	Spanish America	579, 580
Chittenden's card machine	376	Tennessee	233, 238
Choctaw Indians	567	United States	785
Choctank river	460	Venezuela	302
Chowan river	503	Vermont	481, 483
Christianabridge	447	Virginia	860
Christiana creek	451	Concepcion	313
Christianity brief history of	77	Concord (New-Hampshire)	348
Christopher St. island	749	river	306
Chucuito	840	Congregationalists in United States	365
Cibao highlands	735	Connecticut	366
Cincinnati	616, 617	original population	308, 379, 547, 952
Cities of the United States	229	river	366
Ciudad Real	699	Divisions	35
Clarendon cave	307	Constellations	195
Claiborne fort	557	Constitution of the United States	561
Clair St. river	636	Coosa river	25
Climate of Ohio	624	Copernican Sytem	361
Cod, cape	351	Copiapo	861
Coeneuh river	554	Coquimbo	123
Cohoez bridge	395	Cordilleras of Mexico	744
Coinage of Spanish America	678	Coro	841
Cold unusual, causes of	53	Cordova	841
Colleges, tables respecting	216	Corrientes	123
Colonization Society	220	Cotopaxi mountain	522
Colorado river	695, 117	Cotton of South-Carolina	235
Columbia (South-Carolina)	516	Cotton manufactures in the United States	237
college	390	Courts of the United States	165, 327, 747
Columbia river	672, 117	Croix St. river	536
Columbus (Ohio)	618	island	704
Columbia District	461	Creek Indians	718
Combahee river	524	Creoles of the West-Indies	728
Comets	32	Crooked island groupe	725
Commerce and manufactures of	559	Cuba	784
Alabama		population of	550
Commerce and manufactures of		commerce of	578
Brazil	822	Cumana	251, 284
Buenos Ayres	842	Cumberland island	582, 585
Canada	183, 176	college	547
Cape Breton	151	river	767
Columbia District	464	mountain	785
Connecticut	376, 377	Cunawhee mountain	
Delaware	448, 450	Curacoa island	
Domingo St.	732	Curacao	
Georgia	541		
Granada-New	774		

Curiosities of Alabama	Page 562	Elizabethtown (New-Jersey)	Page 417
Canada Lower	178	(Maryland)	458
Georgia	548	(Canada)	181
Iceland	140	Elk river	116, 460
Kentucky	597	Elkton	458
Massachusetts	350	Elliot	567
Mississippi	571	Enchanted mountain	587
Missouri Territory	653	Episcopal academy at Cheshire	373
New-Jersey	423	Episcopalians in United States	207
New-Hampshire	318	Eratothenes' map	13
New-York	404	Erie lake	104
North-Carolina	506	fort	105
Ohio	629	Esquimaux Indians	86, 90, 167
Pennsylvania	441	Esquebo river	800
South-Carolina	531	Essex canal	346
Tennessee	587	Eustatius St. island	749
Vermont	307	Eutaw spring	530
Virginia	488	Exeter	313
Cusco	806	academy	313
Cypress swamp	451	Exuma island	719
Danish America	132	Falkland islands	882
Darien (Georgia)	540	Falmouth	738
Dartmouth college	312	Farmington river	380
Deaf and Dumb Asylms	374, 392	Fayetteville	496
Debtors state of in Virginia	472	Fernando San	861
Deerfield river	305, 348	Fisher's island	407
Delaware	443	Fishery of Newfoundland	148
bay	248	Greenland	143
river	253	United States	242
Indians	171	Flint river	546
Demerara river	800	Florida	550
Deseada island	755	Flour mills in Delaware	449
Detroit	658	Forests effects of upon temperature	55
fort	104, 632	of Iceland	140
river	636	of New-England	291
Desaguadero river	849	of United States	258
Devil's den in New-Hampshire	318	Fox islands	130
Dickinson college	430	river	641
Diseases of Ohio	625	Francisco river	117
Dismal swamp	256, 503	Frankfort (Kentucky)	593
Divorces law concerning in Con-		Franklin college	431, 537
necticut	371	Francis St. river	656, 657
Domingo, St. island	720	Frederickton (New-Brunswick)	163
town	731	Fredericksburg	480
Dominica island	755	Fredericktown	457
Dorset cave	307	Frederica	539
Dover (Delaware)	447	Fredonia	284
Drowned lands	405	French settlers in United States	211
Dusk creek	447	Frenchman's bay	326
Duida volcano	123	Fundy bay of	161
Duloe river	848	Fur trade of Lower Canada	176
Dummer academy	340	United States	241
Durango or New-Biscay	685	Gallipagos isles	883
Dutch Reformed Church	207	Gama Vasquez de voyage to India	16
Dutch settlers in United States	211	Genesee river	400
Earth planet	27, 71	Genevieve St.	645
proofs of its sphericity	27	Georgia	532
Earthquakes in Chili	869	university	537
Eastern branch	465	Southern island	883
Eclipses	31	Geography definition of the term	9
Edgerton	355	history of its rise and progress	9
Edenton	497	its present state	9
Edisto island	531	George lake	402
river	524	Georgetown (District Columbia)	464
Education Society American	219	(South-Carolina)	516
Eleuthera island	719	(Delaware)	448
Elizabeth islands	356	George's St. island	555

German settlers in U. States	Page 211	Guallaga river	
Glassy mountains	528	Guanahani	Page 806
Globes and their use	38	Guanara	719
Glover pond remarkable change in	309	Guanaxuato	784
Goahiros Indians	779	Guarapiche river	690
Goot's paradise	180	Guaraunos Indians	785
Goose creek	465	Guatemala	779
Government of Arkansas Ter.	654	city	698
Bahamas	711	Guantillan river	699
Brazil	817	Guaviari river	697
British America	146	Guayaquil	776
Buenos Ayres	832	river	775
Canada Lower	170	Guiana	776
Canada Upper	182	Gulf Stream	793
Columbia Ter.	461	Hackinsac river	99
Connecticut	368	Hadley's quadrant	492
Delaware	445	Halifax	429
Domingo St.	729	Hallowell	157
Florida	550	Hamilton college	325
Georgia	535	Harbor island	391
Granada New	772	Harrisburg	719
Jamaica	736	Hartford	436
Iceland	136	Hartford bridge	374
Illinois	601	Harvard college	375
Kentucky	590	Hatteras Cape	335
Louisiana	661	Havanna	501, 504
Maryland	454	Haverhill (New-Hampshire)	724
Maine	322	Haupt mount and bay	314
Massachusetts	353	Hayti	364, 358
Mexico	688	Hecla mountain	726
Michigan Ter.	632	Heroulaneum	139
Newfoundland island	147	Henry cape	646
New-Hampshire	311	Herradura de Quintero	731
New-Jersey	410	Herschell planet	861
New-York	387	his satellites	50
North-Carolina	444	Herring their emigration from the	51
Nova-Scotia	155	northern ocean	82
Ohio	621	Hills lake of the	100
Pennsylvania	428	Hillsborough	497
Peru	805	Hispaniola	720
Rhode Island	359	Historical epochs of Bahamas	710
South-Carolina	510	Brazil	815
Spanish America	677	Buenos Ayres	851
Tennessee	575	Canada Lower	169
United States	194	Cape Breton	151
Venezuela	781	Connecticut	367
Vermont	297	Delaware	443
Virginia	471	Domingo St.	727
West-Indies	603	Florida	551
Granada New	770	Georgia	534
Grand Bank	148	Granada New	771
Grand Isle	407	Greenland	141
river (Mich. Ter.)	637	Guiana	794
Grass river	401	Iceland	135
Grenada island	762	Illinois	600
Greenland	141	Indiana	608
original population of	141	Kentucky	590
fishery	143	Louisiana	659
Green mountains	257, 304, 349	Maine	321
river	596	Maryland	453
Greenlanders their origin	86	Massachusetts	351
Greenville (North-Carolina)	498	Mexico	686
college	578	Michigan Territory	651
Greek church	78	Mississippi	564
Gregorian callendar	70	New-Hampshire	311
Guacharo cavern	791	New-Jersey	409
Guadaloupe island	754	New-York	384

Historical epochs of N. Carolina	P. 498	Joseph St. bay (Florida)	Page 554
N. West Territory	640	Ipswich	344
Nova-Scotia	154	river	348
Ohio	614	Iron river	642
Pennsylvania	426	Irish settlers in the United States	211
Peru	804	Iroquoia tribe of Indians	212, 192, 385
Rhode Island	358	88	
South-Carolina	508	Islands definition of	80
Tennessee	574	warmer than continents	57
United States	192	Isthmuses definition of	80
Venezuela	778	Juan St. de Porto Rico	741
Vermont	296	Jujui	840
Virginia	467	Juniata river	439
World	74	Juno asteroid	32
Hockhocking river	627	Jupiter	29
Hogback mountain	528	Kanhawa river	485
Homer's knowledge of geography	11	Kanzas Indians	647
Homochitto river	570	Kanzas river	650
Hopefield settlement	655	Kaskaskia	602
Hot Springs	657	river	604
Housatonnuc river	347, 379	Kataardin mountain	328
Hudson's brook	350	Keene	314
Hudson city	394	Kennebec river	327
river	252	Kennebecensis river	164
sea or bay	98	Kentucky	589
Humphreysville	376	river	595
Huntville	558	Kentucky college	598
Huron lake	104	Keowee river	525
river	636	Keys or sand islands of the Bahamas	714
tribe of Indians	172, 630	Killington peak	304
Hygrometer	67	Kinio mountain	328
Jago St. Chili	860	King's college	157
Jago St. de Cuba	724	Kingston (Canada)	180
(Jamaica)	738	(Jamaica)	738
Jamaica island	735	Kittatinny mountains	422
history of	736	Knisteneaux tribe of Indians	88
James river	254	Knoxville	579
Jauru river	825	Kodiak island	131
Jauja river	813	Kourou	798
Iberville river	669	Kurilian isles	130
Iberi lake	849	Laguaira	785
Icebergs	128	Lakes of America	100
Iceland	133	Lamoille river	805
original population of	133	Lancaster	434
antiquities of	134	Language of Canada Lower	173
Ice mountains of Spitzbergen	128	Iceland	136
Jefferson's seat Monticello	489	Mexico	689
Jefferson college	565	Venezuela	782
Jeffersonville	609	United States	214
Jewish religion brief history of	77	Lansinburgh	394
Illinois river	604, 251	Latitude of any place method of	
Illinois lake	605	finding	47
Illinois State	599	Laurel ridge of mountains	257
Inaguae islands	717	Lawrence St. gulf of	99
Indian ocean	82	river	107
Indiana	606	Law practice of in New-Jersey	418
Indians of the U. S. 576, 615, 635,	647	Laws of Pennsylvania	428
Indian trade	241	United States	206
Indigo, method of cultivating	545	Virginia	472
John St. city (New-Brunswick)	163	Lead mines of Missouri	652
river (New-Brunswick)	164	Lebanon New spring	404
island	152	Leeward islands	702
river (Florida)	553	Lehigh river	439
river (Newfoundland)	148	Leicester academy	340
island (W. Indies)	745	Leogane	732
(Antigua)	753	Leon city	629
Joseph St. river	612		

Leprosy common in English Guiana	799	Mahometan religion brief account of	20
Levees of Louisiana	664	Maine district of	319
Lewistown	447	original population of	321
Lexington (Virginia)	580	eastern lands of	324
(Kentucky)	592	burnt lands of	329
Licking river	596	Maldonado	841
Light and darkness equal distribu-		Mammoth	264
tion of	28	Mamore river	848, 813
Light velocity of	37	Manchester	158
Lima	806	Manzanares river	788
Literature of Alabama	557	Maps first introduced by Anazi-	
Brazil	818	mander	11
Ruenos Ayres	837	and their use	50
Connecticut	372	Maracaibo	784
Domingo St.	750	lake	789
Delaware	446	Maracay	543
Georgia	537	Marblehead	766, 798
Iceland	137	Margaritta island	618
Illinois	601	Marietta	755
Indiana	608	Marigalante island	552, 732
Kentucky	592	Marks St.	800
Louisiana	660	Maroni river	355
Maine	322	Martha's Vineyard	747
Maryland	456	Martin's St. island	663
Massachusetts	335	Martinsville St.	757
Mexico	689	Martinico island	26
Mississippi	565, 661	Mars planet	540
New-Hampshire	312	Mary's St.	546
New-Jersey	413	river (Georgia)	452
New-York	390	Maryland	635
North-Carolina	495	Mary's St. river (Michigan Ter.)	330
Ohio	616	Massachusetts Proper	331
Pennsylvania	430	original population	248
Rhode Island	359	bay	670
South-Carolina	514	Maurepas lake	718
Tennessee	578	Mayaguana island	422
United States	215	Maurice river	116
Venezuela	783	M'Kenzie's river	496
Vermont	300	Medical society of North-Carolina	432
Virginia	474	science state of Pennsyl-	861
Liverpool	158	vania	305
Loche Lake	101	Medicine practice of in New-Jersey	240
Llanos de Manso	830	Melipilla	208
Long island (N. Y.)	405	Memphremagog lake	165
sound	248	Mendoza	26
(West-Indies)	718	Mennonists	784
Long Key	718	Merramichi river	670
Longitude of any place method of	47	Mercury the planet	316
finding	540	Merida	317
Louisville (Georgia)	593	Mermentau river or Rio Mexicano	776
Louisville (Kentucky)	658	Merrimae river	207
Louisiana	645	Messabesio pond	90
Louis St. town	642	Meta river	620
river	168	Methodists in the United States	123
Lower Canada	711	Mexican gulf	625
Lucayans	758	Mexico or New-Spain	689
Lucia St.	207	mountains of	697
Lutherans in the U. S.	237	New Province	616
Lyme range of mountains	351	city	627
Lynn beach	346	city inundated	630
shoe manufactory	813	Miami university	104
Madeira river	663	Miami rivers	638, 104
Madisonville	609	Michigan Territory	604, 632
Madison (Indiana)	488	lake	
Madison's cave	646	Michilimackinac island	
Madrid New	153	fort and river	
Magdalen isles	775, 813	Mississcoui river	
Magdalena river			

Micmac Indians	Page 157	Monongahela river	Page 930
Middle States	382	Montauk Point	406
Middlebury	301	Monte Christi	732
college	300	river	734
Middlesex canal	345	Montego Bay	738
Middletown	375	Monteroy	690
mountains	380	Monte Video	838
Milford (Delaware)	447	Montezuma river	996
Miles, length of, in different coun-		Montezuma bridge	395
tries	69	Monticello	480
Military Bounty lands	601	Montpelier	302
Milky way	36	Montmorency falls	178
Miller's river	348	Montreal	174
Milledgeville	539	Montserrat island	753
Mills of curious construction used		Moon	30
by Kentuckians	595	Moor's charity school	312
Mine river	650	Moosehead lake	328
Mineralogy and mineral waters of		Moosehill mountain	257, 817
Brazil	827	Morant Point	739
Canada Lower	178	Moravians in the U. States	208
Canada Upper	184	Mosquito Indians	699
Connecticut	381	Mountains general account of	81
Florida	555	Mountains heights of	68
Georgia	548	Multnomah river	674
Grenada New	777	Muscle Shoals	561
Greenland	144	Murfreesborough	579
Iceland	140	Musconecunk river	422
Illinois	605	Muskingum river	626
Indiana	612	Nantucket island	354
Kentucky	597	Narragansett bay	248
Louisiana	671	Indians	357
Massachusetts	350	breed of horses	364
Mexico	698	Narrows	403
Missouri Ter.	652	Nashville	579
New-Jersey	423	Nassau	719
New-York	403	Nashua river	348
North-Carolina	505	Natchez	565
Northwest Territory	643	Natural Bridge in Virginia	489
Nova-Scotia	162	Natchitoches	668
Ohio	629	Naugatus river	380
Pennsylvania	441	Naval depots in Virginia	481
Peru	810	Navy of the United States	223
Rhode Island	364	Navigation inland of Alabama	659
South-Carolina	530	Canada Lower	175
Spitzbergen	129	Georgia	541
Tennessee	586	Navigation inland of Louisiana	664
United States	282	Maryland	458
Venezuela	791	Michigan Territory	634
Vermont	306	New-York	396
Virginia	487	South-Carolina	517
Map of the United States	227 & 900	United States	231
Missions Foreign, Societies for		Negroes in the United States	212
promoting	219	of the W. Indies, religious	703
Missions to Venezuela	780	state of	102
Mississippi	563	Nelson's river	348
river	110	Neponset river	104
Missouri Territory	644	Nepisingui lake	172
Missouri river	110	Indians	123
McKenzie's river	116	Nevada mountain	751
Mobile	558	Nevis island	509
river	560, 561	Neus river	181
Mohawk Indians	171, 385, 386	Newark (Canada)	416
river	400	(New-Jersey)	163
Mohican Indians	366	New-Brunswick province	417
Mohicanneew Indians	88, 191	town (New-Jersey)	343
Moluches Indians	874	New-Bedford	496
Monadnock mountain	258	Newbern	

Newburyport	Page 343	Ottawa river	Page 178
Newcastle	447	Otter creek river	365
New-England	285	Ouahitta river	669
Newfoundland island	147	Ouisconsin river	640, 641
New-Hampshire	310	Oyapoe	798
New-Haven	373, 378	Oyster shells	483, 571
New-Herrnhutt	143	Ozamo river	754
New-Jersey	408	Pachitea river	813
New-London	375	Pacific ocean	81, 118
New-Orleans	662	Pacolet springs	530
New-Providence island	719	Pallas, asteroid	31
Newport (Rhode Island)	361	Pamlico sound	249
New South Wales	185	river	503
New North Wales	186	Panama	773
New Smyrna	551	Para	815, 820
Newspapers in New-England and the United States	292	Paraguay river	114, 825
New-York state	382	Paramaribo	797
city and harbor	231, 392	Parana river	825, 847
bay	403	Paria gulf and peninsula of lake	789
Nieva or Neybe	734	Parima chain of mountains	800
Niagara river, falls, and fort	105, 284	Paris's mountain	528
Nicaragua lake	108	Pascagoula river	571
Nickoiauk cave	549	Paseuara lake	697
Nicholas St.	732	Pas la, city	840
Nipmuc Indians	366	Passaic river	421
Nootka Sound	673	Passamaquoddy bay	327
Norfolk	478	Patagonia	872
Norridgewoe Indians	321	native tribes of	874
Norte, Rio del	118, 695	Patapsoo and Patuxent rivers	460
Northampton	344	Patterson	419
North-Carolina	490	Pacartambo river	813
original population of	492	Paucatie and Pautuxet rivers	364, 380
Northern ocean	82	Pautucket river	364
Northwest Territory	640	Pawnee Indians	647
Northwest coast of America	129	Peace river	116
Northwest passage, history of attempts to discover	95	Pearl river	571, 669
Norwich	375	Pedee river	254, 525
Nova-Scotia	153	Pedro shoals	740
Oaxaca	690	Peninsulas, general account of	80
Oceans, general account of	81	Pennsylvania	434
Oconee mountain	527	university	431
Ogeechee river	546	Penobscot bay	326
Ohio state	612	river	327
university	616	Pensacola	552
river	249	bay	554
Ohio pyle falls	440	Pepin lake	648
Okafonoco swamp	256, 547	Pequod Indians	366
Okkak	167	Perdido river	554
Okemulgee river	255	bay	554
Olympian springs	597	Peroee isle	153
Omegas Indians	779	Perene river	813
Oneida Indians	386	Pernambuco	820
lake	402	Perth Amboy	416
Onion river	305	Peru	803
Onondaga lake	402	Peruvians	87
Ontario lake	106	Petersburgh (Virginia)	479
Oofenoy mountain	527	(Georgia)	540
Oreghilla island	767	Petiteodiac river	165
Orleans New	662	Philadelphia	428
Oronoco river	115	Philip, king	358
Oropesa	840	Phillips' academy in Andover	388
Orthographic projection of the sphere	50	Phillips' Exeter academy	315
Osaage Indians	647	Pictou	158
Osoino	862	Pigeon river	643
Oswegatchie river and lake	401, 402	Pl'gmies in Missouri	654
Oswego river	400	Pilcomayo river	847
		Pilot mountain	506

Pineckney's island	Page 531	Port Royal	Page 738
Pinos, or isle of pines	726	Port au Prince	731
Pittsburg	434	Porter's lake	161
Piscataqua river and bridge	316	Portland	323
Placentia	148	Portlock harbor	129
Platte river	650	Porto Bello	774
Plata la river	114, 846	Cavello	785
city	839	Rico	741
Plum island (Massachusetts)	353	Portsmouth	513
(Long Island)	407	Portuguese discoveries	16
Plymouth (North-Carolina)	497	Post-office establishment of the U.	
(Massachusetts)	343	States	227
bay	349	Potosi	839, 852
Ponchartrain lake	670	Potowmac river	253
Popish religion, brief sketch of	77	Poultney river, remarkable change	
Poosoomsue river	305	in	307
Popayan	773	Poughkeepsie	394
Popocatepetl volcano	124	Powow river falls	351
Population of America	97	Presbyterians in U. States	206
Amazonia	811	Presque isle	103
Arkansas Territory	655	Prince Edward's Island	152
Bahamas	712	Princeton	417
Brazil	816	college	413
Breton Cape	150	Princeton, Theological institution	415
British America	146	Principle	724
Buenos Ayres	834	Promontories, general account of	80
Canada Lower	171	Providence	560
Canada Upper	171, 182	Providence New	719
Columbia District	461	Provincetown	352
Connecticut	369	Prudence isle	365
Delaware	445	Ptolemy his merit as a geographer	15
Domingo St.	730	Ptolemaic system	24
Florida	551	Puelches Indians	804
Georgia	536	Puno	840
Granada New	772	Purgatory	365
Greenland	142	Quabog pond	349
Guatemala	698	Quaker's in the U. States	207
Guiana	796	Quebec	173
Jamaica	737	Queen's college	415
Iceland	136	Queen Charlotte islands	673
Illinois	601	Quillota	861
Indiana	608	Quinebog	379
Kentucky	591	Quinsigamond pond	349
Louisiana	662	Quinti bay of	182
Maine	319	Quito	772
Maryland	454	Racket river	491
Massachusetts	353	Rain gage	66
Mexico	685	Raleigh	497
Missouri	644	Rappahannoc river	484
Michigan Territory	632	Raritan river	421
Mississippi	565	Rattlesnake hill	318
New-Brunswick	163	Red river	642, 669
New-England	291	Red lake	643
Newfoundland	147	Red deer lake	102
New-Hampshire	312	Reformation progress of	78
New-Jersey	411	Regis St. Indians	172
New-York	388	Religion history of	76
North-Carolina	494	America	97
Nova-Scotia	157	Bahamas	712
Ohio	615	Brazil	816
Pennsylvania	429	Britain New	167
Peru	806	Buenos Ayres	832
Rhodé Island	359	Canada Lower	170
South-Carolina	511	Canada Upper	183
United States	210	Columbia District	462
Venezuela	781	Connecticut	367
Vermont	299	Delaware	444
Virginia	472	Domingo St.	729
World	71	Florida	551

Religion of Georgia	Page 535	Roads of Ohio	Page 627
Granda New	771	Pennsylvania	436
Greenland	148	Rhode Island	382
Jamaica	736	South-Carolina	516
Iceland	134	U. States	230
Indiana	608	Virginia	480
Kentucky	590	Roanoke river	254
Louisiana	660	Roaring river	643
Maine	322	Rock spring	548
Maryland	454	Rocky mountains	124
Massachusetts	333	Roman Catholics in U. States	207
Mexico	687	religion brief sketch of	77
Michigan Territory	631	Rose's St. bay	554
New-Hampshire	311	island	555
New-Jersey	409	Rossignol lake	161
New-York	387	Rouge river	636
North-Carolina	493	Roundtop mountain	403
Nova-Scotia	154	Royal isle	106
Ohio	617	Rum method of making	700
Peru	805	Russian America	126
Rhode Island	358	Rutland	301
South-Carolina	610	Saba island	748
Spanish America	677	Sabine river	670
Tennessee	575	Sable river	401
United States	206	Saco river	28
Venezuela	780	Saes or Saukies, Indians	600
Vermont	297	Sacrament St.	241
Virginia	471	Saddle mountain	258
West-Indies	708	Saganau river and bay	636, 637
Religions of the world	77	Salladillo and Salado rivers	847, 848
Religious and benevolent institu-		Salem (Massachusetts)	342
tions in the U. States	219	(New-Jersey)	417
Revenue of Buenos Ayres	836	Saline Grand and Rock	283
Canada Lower	172	Salta	841
Connecticut	370	Salt springs and mines	582, 653
Jamaica	737	Salt river	596
Iceland	136	Salvador St	819
Massachusetts	334	Samana bay and peninsula	734
Mexico	689	San Carlos	785
New-York	388	de Matanzas	725
Peru	807	San Christoval lake	696
South-Carolina	512	San Fernando	861
United States	223, 243	San Francisco river	824
Venezuela	781	San Luis de Potosi	685
Vermont	299	San Miguel & San Yago del Estero	841
Rhode Island	358	San Pedro	821
Rhode Island state	357	Sandusky river	627
Rhode Island	365	Sandy river	486
Rice grounds of South-Carolina	522	Santa Fe	691
Richmond	478, 481	Fe de Bogota	772
Rio Janeiro or St. Sebastian	818	Cruz	747
Rio Negro	873	Cruz de la Sierra	840
Roads of Buenos Ayres	841	Santa Martha	774
Canada Upper	184	Santee river	254, 523, 524
Chili	862	Santiabo river	694
Connecticut	375	Saranac river	401
Georgia	540	Saratoga springs	404
Iceland	138	Seakatchawine river	102
Illinois	602	Satilla river	546
Maine	323	Saturn planet	29
Maryland	458	his satellites	31
Massachusetts	344	Savannah	538
Mexico	691	river	255, 524
Mississippi	566	Savanna la Mar	738
New-Hampshire	314	Shenectady	394
New-Jersey	418	Schmelnrenburg harbor	128
New-York	395	Schools of Virginia	476
North-Carolina	498	School fund of Connecticut	373
Nova-Scotia	158	New-York	391

Behnykill river	Page 439	Syphon springs in Virginia	Page 488
Scioto river	627	Table mountain	527
Seoharie river	400	Tagheconnuc range of moun-	
Sehodie river	165	tains	257, 349, 380
Scotch settlers in the U. States	211	Talca Chuano	863
Sebacock lake	328	Tallapoosa river	561
Seneca tribe of Indians	171, 386	Tapajos river	825
lake	402	Tarborough	498
river	401	Taunton river	348
Sesostria' maps	11	Teche river	670
Seyern river	186	Tehueltets Indians	876
Shakers in U. States	208	Tejuco	821
Shawaneetown	602	Temperature of different parts of	
Shelburne	158	the earth	53
Shelter island	407	Tennessee state	572
Shenandoah river	485	river	251, 583
canals of	481	Tercero river	847
Sherburne	355	Terra del Fuego	882
Shoals isles of	318	Texas	685
Simons St. island	549	Tezcuco lake	696
Sinkholes of Kentucky	598	Thales, his improvements in geo-	
Sioux Indians	647	graphy and astronomy	11
Six Nations Indians	171, 172	Thames river	379
Skalholt	138	Thetford pond	308
Slave lake and river	101	Theological institution in Andover	339
Slaves their condition in W.-Indies	705	Thomas St.	785
Smithfield (North-Carolina)	498	island	745, 746
Smith's island	507	Tiburon peninsula	734
Snaefeld mountain	139	Tides	66
Snake Indians	648	Titicaca lake	848
Soil. See Agriculture		Tobacco of Maryland	459
Solar system	23	Tobago island	763
Sonora intendency of	684	Tocantim river	825
Sorelle	175	Tockoa creek springs	549
river	175	Tocuyo	784
South-Carolina	507	river	788
college	514	Tom mount range	257, 349
Southern States	465	Tombigbee river and fort	561
South-Hadley canals	345	Tortolo island	746
Spanish America	676	Tortuga island	766
Spencer mountains-	328	Tract Society	220
Spitzbergen islands	127	Transylvania university	592
Springfield	344	Trenton	416
Squam lake	317	bridge	418
Stabrook	798	Trinidad island	764
Stars fixed	34	Trois Rivières	174
Staten island	407	Troy	394
Stephens' St.	558	Truxillo and Tulmero	785, 807
Fort	557	Tula river	696
Stereographic projection of the		Tunguragua river	108, 109, 809
sphere	50	Tankers	208
Steubenville (Ohio)	618	Turks islands	716
Stono river	524	Tuscarora Indians	171, 386
Strabo his merit as a geographer	15	Tuy river	788
Sugar method of cultivating W. I.	707	Tychonic system	25
of Louisiana	668	Valencia	785
Sun	25	lake	789
its presence prime cause of heat	53	Valdivia and Valparaiso	861
Sunapee lake	317	Varinas	785
Sunbury	539	Venezuela	777
Superior lake	103	Venus, planet	27
Surinam river	800	Vera Cruz	690
Susquehannah river	253	Vermejo river	847
Swedesborough	417	Vermillion river	670
Swedes in the United States	212	Vermont	295
Swiss settlers in the United States	212	Vernon Mount	479
Swetara river	442	Vesta, asteroid	33
Sydney	150	Vevay (Indiana)	609

Victoria		Windward islands	Page 702, 757
Villa Rica	821	Winnebago lake	613
Villarica	862	Winnipeg river	102, 116, 642
Vincennes	609	lake	102
Vincent St. island	759	Winnipiseogee lake	517
Virgin Gorda	746	river	316
islands	745	Wiscasset	323
Virginia	466	Worcester	344
Unbagog lake	517	World, extent and original popula-	
Unalaska island	180	tion of	71
Unare river	788	Noah's division of	72
Universalists in United States	208	historical epochs of	74
Union college	390	geographical division of	83
Unjijah river	116	superficial contents of	71
United provinces of S. America	827	Worrows Indians	795
United States of America	189	Wreckers of the Bahamas	714
original population of	191	Xarayas lake	108
constitution of	195	Yale college	372
Volcanoes of Iceland	139	Yadkin river	254
Chili	866	Yaguaron	840
Upper Canada	179	Yaws, a negro disease	799
Uruguay river	848	Yazoo river	570
Utica	394	Yellow Spring	630
Wabash river	232, 611	Stone river	651
Wachusett mountain	258, 349	Yohiogany river	440
Wallingford river	380	York (Upper Canada)	180
Wallkill river	405	(Maine)	523
Wampoms rock	351	town	480
Wando river	524	river (Virginia)	484
Wantastiquek river	305	Yucatan	685
War, is useful to geography	12	Yucayale river	108, 812
Warren	361	Yuna river	734
Washington city	462	Zacatecas	690
(North-Carolina)	498	Zacatula river	696
(Mississippi)	566	Zanesville	618
seat of at Mount Vernon	479	Zoology of Arkansas Ter.	657
college (Maryland)	466	Bahamas	716
mount	257, 288	Brazil	826
college (Penn.)	431	Canada Upper	184
(Tenn.)	578	Connecticut	391
Watling's island	719	Georgia	548
Webb's island	353	Granada New	776
Western States	563	Greenland	143
Territory	671	Guiana	802
Westfield river	348	Iceland	140
West-Indies	700	Kentucky	596
by whom possessed	704	Louisiana	670
original population of	702	Maine	328
White mountains	257, 317, 349	Missouri Ter.	651
river (Vermont)	305	Michigan Ter.	637
river (Arkansas)	656	Mississippi	572
Bear lake	642	Northwest Ter.	643
Whitewater river	611	Ohio	623
Whitney's manufactory of fire arms	376	Peru	810
Williams college	338	South-Carolina	599
William and Mary college	475	Spitzbergen	129
Williamsburg	479	Tennessee	585
Willsborough rock	404	United States	263
Wilmington (North-Carolina)	497	Venezuela	791
(Delaware)	446	Virginia	487
Windsor (Vermont)	301	Zumpango lake	696
Winds	63		

ERRATA, et ADDENDA.

Page 107 line 34 read, "is surpassed by few rivers on the globe."

108, bottom line, for 80° read 8°.

117 line 11 for 54° 24', read 55°.

118 line 4 for *is* claimed, read *was* claimed.

227 After line 12 from bottom, add.—The total amount of gold, silver, and copper coinage, at the mint of the United States, from its establishment to Jan. 1st, 1818, was \$14,183,763 36 cents. Amount in 1818, \$1,365,687 50 cents.

252 line 5 from bottom, after N. to S. add 12° or 15° W.

311 Article *Government*. The constitution of this state was revised and altered in 1792. There are now but 3 Judges.

313 line 31 dele *State-house*.

386 Add,—by a report made to the assembly of the state of New-York, 1819, it appears, that the whole number of Indians within it, is 4976 Oneidas, 1031. The land possessed by all the Indians, is 271,323 acres. By the Oneidas, 20,000. All the land is estimated at \$1,626,000.

671 line 8 from bottom, for *lat.* 112°, read *lon.* 112.


DIRECTIONS TO THE BINDER FOR PLACING THE MAPS.

VOL. I.

- | | |
|----------------------------------|----------|
| 1. The World, to face the Title. | |
| 2. North-America | page 125 |
| 3. South-America | 768 |

VOL. II.

- | | |
|-------------------------------|----------|
| 1. Europe, to face the Title. | |
| 2. Asia | page 441 |
| 3. Africa | 724 |

 N. B.—Pages 189 and 190, and 209 and 210, are to be *cancelled*, and these pages, which are reprinted *separately*, with corrections, substituted in their place. The Binder will please to pay strict attention to this direction.

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